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ABSTRACT

This comparative study of three major online bibliographic systems is designed to provide assistance to library administrators in the assessment of the potential impact of such systems upon the operations of their libraries. A side by side arrangement of the text allows an overview of any specific characteristic under consideration. These characteristics are divided into several broad areas: (1) description, i.e., information on current services, access modes, characteristics of users, system startup, user support services, and general system information; (2) searchability aspects, including the file system indexing, provisions for quality and authority control, and the command language and formats utilized; (3) processes and products associated with online cataloging, acquisitions, and serials control; (4) applications to other library functions, e.g., circulation, reference, interlibrary loan, and management information; (5) financial and administrative considerations, i.e., charges and fees, contract obligations, and arrangements with regional networks; and (6) system administration. Also included for each system are a chronology of system events, descriptions of announced future developments, a selected bibliography of evaluative studies, and a bibliography of training aids and manuals. Additional information on the individual systems that is not directly comparable is provided in a number of appendices. (RAA)

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ONLINE RESOURCE SHARING II

A Comparison of: OCLC, Incorporated, Research Libraries Information Network, and Washington Library Network

By: Mary Ellen Jacobs, Richard Woods, and Judith Yarborough

Editor: Susan K. Martin

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

January, 1979

California Library Authority for Systems and Services

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I. INTRODUCTION

A. Purpose

The purpose of this second edition of Online Resource Sharing is similar to that of the first edition: to help library administrators and their staffs assess not only the potential impact of on-line bibliographic systems upon the operation of their libraries, but also upon the quality and variety of services which their libraries provide to their users.

It is not intended that readers should be able to make long-term decisions merely by reading this text: there is simply no substitute for physically testing each system with an open and critical mind. The simplest way to do that is to obtain a list of users and visit some of them. Some users of these systems have themselves undertaken comparison tests, of greater or lesser validity, and some of the studies resulting from those tests are cited in Section X. Readers who wish to explore the details of each system, should read the various handbooks issued by the respective system offices or by their various user groups or network support organizations.

Finally, no reader should be reluctant to collar a staff member of any of the centers or a regional network, and ask questions directly.

B. Differences Between the First and Second Editions

As readers can infer just from the title page, some obvious and major changes have occurred since the first edition: the Ohio College Library Center is now OCLC, Incorporated; BALLOTS is now called the Research Libraries Information Network (RLIN); and the Washington Library Network (WLN) has been added to the comparison. In the first two cases, the name changes reflect basic revisions of the governance structures of OCLC, Incorporated, and RLIN. WLN has been added not only because of reader demand, but because the comparison is seriously deficient if such a major facility is omitted. In that sense, future editions will always be subject to the criticism of omission.

Another more subtle change in focus is the direct result of the geographic distribution of purchasers of the first edition: they were by no means predominantly from California. We have therefore decreased the emphasis upon California implications, such as price and service differences and attempted to project a more nation-wide perspective of each system.

First edition readers may recall, too, that the authors, Jamie J. Levine and Timothy Logan, were not counterparts in each of the two systems which they represented. Ms. Levine worked for NELINET in those days, an organization which was not operated by OCLC, whereas Tim Logan had marketing responsibility for BALLOTS as a headquarters staff member. For career watchers, Ms. Levine now works for RLIN and Mr. Logan has departed from the field of library-related automation altogether.

All three authors of the second edition have senior responsibilities in their respective headquarters organizations. To counterbalance the unavoidable desire of each author to present the system which he or she represents to the best possible advantage, rather than from the more critical view which a user might present, two ground rules were established. First, all authors agreed upon the wording of the comparison categories in that they should apply to each system; second, Susan K. Martin, a well-known author in the field of library networking, agreed to serve as editor. The latter decision was made not only because of Ms. Martin's expertise and integrity, but because CLASS has, since the first edition was published, concluded a contract with RLIN which could be viewed by some readers as interjecting bias into the text.

C. Some Implications for Librarianship

There is no doubt that the impact of computer-based on-line bibliographic and information services upon libraries, researchers, and upon the society which librarians and information specialists serve, has intensified during the last few years. These effects will continue to intrude - for good or evil - even more dramatically in the future.

The guide is not the place for a disquisition about the social impact of such systems, but administrators should be aware of some of these implications: libraries, for instance, are increasing their inter-dependency upon one another, sometimes against the will of professionals in the field, sometimes as a result of their leadership.

"Open access" planning, collection apportionment among institutions, depository systems, union catalogs, some aspects of inter-type planning and coordinate funding are facilitated by such systems. The possibilities opened by these systems provide us with an opportunity to deal with these concepts in new and exciting ways. Major aspects of librarianship and the services which the profession renders to its publics will never again be the same.

Largely through the efforts of the Library of Congress, the Council on Library Resources, NCLIS, representatives of various library networking organizations, and the private sector, forces are at work which are moving toward the realization of various components of a nation-wide system integration in several ways. We may see in the not too distant future, for instance, interconnections of two or more large bibliographic systems not only between each other, but with other on-line

library-related systems as well. A user may at last not only be able to locate in real-time which library has a needed item, regardless of which on-line bibliographic system a particular library uses, but also request that it be dispatched quickly to him for his use. It may become common to expect a library to know the availability status of an item not only from the local library, but also from a large number of other libraries as well. This information is already available in some parts of the country where local systems have been carefully planned to be integrated with other systems. Technology and its attendant economics will continue to drive librarians and information suppliers to innovation and change.

D. How to Use the Guide

A reader can approach the guide from at least two directions:

(1) To obtain an overview of the characteristics of any single system, scan the appropriate column beginning on page 7. Each page contains three columns, one for each system, arranged alphabetically left to right.

(2) To find out how the systems compare with respect to a particular characteristic--searching techniques, for instance--scan the Table of Contents, then turn to the page indexed.

E. Some Things to Watch Out For

Any conscientious observer or user of library networks has seen abrupt and sometimes catastrophic changes occur in system performance; response time one morning can be less than one second; the next afternoon it can be so slow as to cause terminal operators to exhibit anxiety neuroses. Factors unforeseen and bizarre can influence system performance. A strike by the employees of a terminal manufacturer can cause frustrating delays in delivery. Floods, lightening, power failure, vendor price increases, regional holidays, undecipherable software "bugs" can all conspire dramatically to degrade, or even occasionally improve each system's performance. Luckily, so far, such bedevilments have not occurred simultaneously.

There is another perverse quality in such complex systems which the inexperienced observer should watch out for: the phenomenon of compensation. For example, the installation of a new index or access point can increase the flexibility of access to a data base (obviously a good thing) and simultaneously cause an increase in over-all response time (certainly a bad thing).

As the complexity of such systems increases, it becomes more likely that some part of the system will not work well: the effect of even a small adjustment in one line of software code can cascade the system into quixotic behavior that is beyond human prediction. Nevertheless, each system is improving.

Other areas which are not explicitly dealt with by the authors include: quality of personnel, and financial and price stability. Interested readers should ask appropriate system personnel about these things, too.

The reader should also be sensitive to the fact that we have attempted to describe each system as it operated at the time of publication. Changes occur so rapidly that no monographic publication can be relied upon to provide up-to-date information. System changes are carried by several professional newsletters familiar to most readers already. Future services are not described as though they are operational. Future plans are briefly noted in Section IX without implementation dates.

F. Terminology

During the process of deciding upon categories under which each system would be compared, the authors and the editor were struck by the different ways in which the same technical terms are used by the proponents of each Center: "Profile," as used by RLIN, is different from the way OCLC people use it. And each group propounds - at times with great insistence - that areas which appear to the layman to be quite similar must have different names: "product," "process" and "service" are cases in point.

To help resolve this dilemma, a short Glossary is included, which juxtaposes these variant usages by the Centers as inferred from their respective texts.

G. Style Note

An apparent trivial point: since our language currently has no acceptable pronoun which combines male and female attributes without rendering them both inanimate ("it" does not substitute well for he/she/her/him) the reader should not take offense when "he" is used. Perhaps grammarians will have an answer by the time the third edition goes to press.

Each author was primarily responsible for separate sections of the Guide and their writing styles differ considerably. The editorial job, performed by Susan Martin, Head of the Library Systems Office at the University of California, Berkeley, no doubt altered the flavor of their respective styles. Such things were done with my approval, as Executive Director of CLASS. Suffice it to say, none of the people involved in this publication is wholly satisfied and we fully expect others to point out its failings, too.

Since the Guide is extremely time-dependent - changes in each system are frequently made - it occurred to the editor that the Guide might improve its usefulness and range if it were revised and published periodically.

Readers are encouraged to send comments to the CLASS

office.

H. The Authors, Editor, Acknowledgement

Mary Ellen Jacobs, author of the section about OCLC, Incorporated, is Director of OCLC User Services Division.

Richard Woods, author of the section about the Washington Library Network, is WLN Library Systems Coordinator.

Judith Yarborough, author of the section about the Research Libraries Information Network, is Assistant Director of RLIN.

Susan K. Martin, Editor, is Head of the Library Systems Office at the University of California, Berkeley and author of several network related publications, most notably Library Networks, 1978-79.

Grateful thanks are offered to Ann Arnold Wood, technical writer, who patiently converted and edited text from four writers using the WYLBUR text editing system resident at the Stanford Center for Information Processing (SCIP), and who was always willing to undertake and coordinate the dozens of unforeseen details which emerged in the course of the project.

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GLOSSARY

The terms selected for inclusion in this Glossary are used by any or all of the authors, sometimes in slightly different ways. There are no "official" dictionary definitions provided here; the terms and their usages are included merely as an aid to clarify their use in this publication.

AUTHORITY CONTROL

The capability to maintain a cataloging authority for all authority and bibliographic records added to a data base. WLN has the ability to maintain authority control over its bibliographic data base because authorized headings are stored separately from the rest of the bibliographic information which facilitates automated support.

BOOLEAN LOGIC

A technique for combining or excluding sets of numbers or words. RLIN users employ this technique to search for records in its data bases, combining key words with AND, OR, and AND NOT operators. WLN Participants can combine all searches using AND, OR, and BUT NOT combinations. While OCLC does not use Boolean logic overtly, derived search keys relate truncated words with AND, represented by commas.

COLLECTION

A collection in the WLN system is an Authority group, or group of libraries that use and share in the maintenance of the same name, subject, and series authority files. Collection level information in a bibliographic record includes the choice and form of main, added, subject, and series entries, and related cross references.

DEDICATED LINE

A telephone line which can be used twenty-four hours a day for a flat monthly lease fee. Use of such lines is not metered or charged on the basis of how many minutes a call may consume. WLN, RLIN and OCLC employ dedicated lines for their standard services, although other options are available (e.g., dial-up, TYMNET). Dedicated lines also permit data to be transmitted between terminals and computers at higher speeds than are possible with voice-grade dial-up lines.

DIAL-UP TERMINAL

A low-speed typewriter-like or cathode ray tube terminal which, when not in use, may be disconnected from the telephone network. These tend to be less expensive than "intelligent" terminals (such as the OCLC Model 100 Display, the WLN Hazeltine Mod I, or the RLIN Zentec 9003), and often are portable. They are usually used with voice-grade telephone lines through familiar desk-type telephones. Most dial-up

terminals do not provide a full ALA character set. Several makes and models can be used with either the RLIN, WLN, or OCLC systems, but telephone line charges are time dependent.

DOWN TIME

That period of time during which the system is unavailable for service. Usually expressed in management reports as "scheduled" or "unscheduled" down time or "system unavailability."

EXCLUSION LIST

"Exclusion List" is RLIN system terminology for "Stop List" (q.v.) in OCLC system terminology.

FIELD

In all three systems, a field is an area of a bibliographic record identified by a MARC Tag. Main entry, cataloging source, subject heading are examples of fields. Fields may be either fixed length (date, for instance), or variable length (title, for instance). These are explained in detail in various user manuals supplied by all Centers.

HIT RATE

Usually expressed as a percentage, it is the ratio of items sought to items retrieved: a 75 percent hit rate, for instance, means that a user received a satisfactory reply to his searches 75 out of 100 times. But there are subtle distinctions and causes which determine this result, e.g., misspelled search keys, etc. The usual inference from such experiences is that one data base is less appropriate than another for a particular application (current cataloging, retrospective conversion, etc.). This inference is not always valid. It is also useful to remember that hit rates change over time as a data base grows.

MARC/MARC TAG

MARC means MAchine Readable Cataloging. It is a standard format used to transmit a bibliographic record from one computer system to another, usually in magnetic tape form. Bibliographic records which have been converted to machine-readable form in the fullest version of the format by the Library of Congress are generally referred to as MARC records. Other agencies can, and do, create records in the same format - which, after all, is one prerequisite for processing "standard" bibliographic records from several sources on the same machine.

MARC Tags are numbers or mnemonic alpha characters specified by the MARC Communications Format standard to explicitly identify fields in the MARC Record. Such fields include different kinds of authors, titles, main entries, subject headings, and the like.

MODEM

A "black box" supplied by either the telephone company, the terminal vendor, or another commercial source, used to interface a terminal with the telephone network. Used with both dedicated and dial-up telephone lines. Some terminal manufacturers include the modem within the terminal unit.

NETWORK

With respect to OCLC in this publication, "network" usually refers to those organizations which themselves have members which have concluded a group contract with OCLC. Such groups include NELINET, AMIGOS, SOLINET, etc.

In RLIN, "network" refers to those services which are provided to users other than the Stanford University Libraries. Acquisitions control is, for instance, available to Stanford but not to "external" or "network" users of RLIN's services.

WLN is by definition a network. Members contract directly with WLN and all services are available to all contracting members. WLN also includes telecommunications, interlibrary loan, and reference/referral systems, making it a "full service" library network.

Generally, the word is used very loosely by the library profession, and other meanings also appear in this text.

Except for the above, readers should be able to infer these variant meanings from the text.

PARTICIPANT

This title refers to libraries which use the on-line capabilities of WLN, as well as additional services WLN provides to all members.

PROFILE

Information obtained from users of all three systems, to specify card formats, holdings codes, and/or other information. These data are loaded into a computer and automatically control the products which a library receives from each system. The process of specifying this information by interviewing is called "profiling".

RESPONSE TIME

That period of time which elapses between depression of the SEND key on a terminal and the completion of the displayed text which is returned by the computer. It is the period during which a terminal operator waits for the computer to reply to the SEND/TRANSMIT command, which can appear to be much longer than the actual clock time. This is only one of the factors to be considered in user productivity or throughput. For a more detailed discussion of productivity, see the sections on response time and searching.

SAVE FILE

A place in the OCLC computer where records can be stored temporarily by any user, and recalled for additional work, e.g., proofreading. The files are purged automatically after a time. Records generally are released by the user from his Save File into the processing queue to produce catalog cards or archive tapes.

Each WLN Participant has a similar Working File in which cataloging-in-progress can be stored until it is ready to be entered in the data base (after local and WLN editing and review). In addition, each has a Waiting File, which provides a queue for cataloging products (cards and labels) and requests awaiting the arrival of a full MARC record in the data base.

SEARCH KEY

A short string of characters derived from words in a machine readable bibliographic record or from the title page of a book or other medium, by either human or machine analysis. See Section III, DATA BASES AND ACCESS for derivation techniques in OCLC. RLIN does not use the derived search key technique for searching its data bases; rather, it employs a "key word" technique, explained in the RLIN portion of Section II, in which terms are combined according to Boolean Logic (q.v.). WLN does not use derived search keys. Participants can search by keyword and by subfields (parts of a heading) which can be truncated from the right. WLN's searching techniques are described in detail in sections III.B and III.C.

SEARCH ONLY/PUBLIC SERVICE SEARCHING

RLIN provides accounts for libraries who wish to search the data base and copy the bibliographic or holdings information on a typewriter terminal or video terminal with a printer. These accounts are called "Search Only" accounts. These users need not be cataloging users of RLIN.

WLN and OCLC provide for public service staff or patron searching of bibliographic or holdings information. OCLC searching terminals need not be used for cataloging, but must be located in a library that is a cataloging user of OCLC.

SHARED CATALOGING

A process in cataloging whereby a catalog record created by one agency for its own use is made available to another agency for its use in the cataloging process. This technique is intended to reduce the incidence of duplicate intellectual effort. In all three systems such cataloging records enter the system in weekly batches from the LC MARC Tape Distribution Service, and from records created by participating libraries. In OCLC, user-generated records are replaced by MARC records (when they exist): the user is generally presented with only a single version of a record to use for cataloging. WLN does not allow variant bibliographic records for a unique item to be added.

In some cases a new MARC record will replace a user entered record. In RLIN, each participating library creates its own catalog file, but it may use records in any other participant's file to aid in the shared cataloging process. Generally the user is presented with a choice of variants to use for cataloging, either MARC or one of a number of user variants. The RLIN cataloging data base contains a separate file of MARC records.

STOP LIST

A list of words contained in a system's computer which, because of their pervasiveness, would cause an excessive number of replies to a query. Such words include "report", "California", "Department", etc., in the OCLC system, and "Commission", "History", and the common articles in the RLIN system. WLN is able to utilize a small stop word list which is limited to English and foreign language articles and corporate abbreviations. WLN's stop word list is applied to keyword searches only. Instructions in their use (or non-use) are provided by OCLC. The RLIN term for "Stop List" is "Exclusion List".

TYMNET

A commercial service provided by Tymshare Corporation through which some dial-up terminals are connected to either OCLC or RLIN. Charges are made by the hour and log-on and -off occurrences. TYMSHARE uses standard telephone lines, but provides a switching service as well. Competitors include TELENET.

UNION CATALOG

A catalog in any medium containing descriptions of library materials and their locations. Such locations usually indicate several separate library facilities and are usually designated by various codes or abbreviations. The National Union Catalog is the obvious exemplar of the concept. The OCLC location codes are displayed upon request as three characters on the bottom of the screen, each character cluster representing a holding library. In RLIN, location codes include the holding library name and its call number, but do not exist as a union catalog in the traditional sense, since each library 's holdings are displayed in a separate record. WLN's Holdings file, which can be displayed on-line, includes NUC location symbol and call number for each holding library.

WAITING FILE

(See WLN description under SAVE FILE)

WORK SHEETS

Sheets of paper which contain MARC Tags or data elements and other aids to both catalogers and terminal operators so that work flow is expedited within a library's cataloging processes.

RLIN provides these off-line and includes available bibliographic information as well as tagging and format information. WLN provides cataloging worksheet input forms to Participants. Printers connected to OCLC terminals are used to produce printed terminal screen images which catalogers can then use as worksheets. Various other worksheets are provided by all systems and some dependent networks in printed form. Some participants design their own worksheets.

WORKING FILE

(See WLN description under SAVE FILE)

OCLC

II. DESCRIPTION

A. Current Services

OCLC, Inc., is a not-for-profit corporation chartered by the State of Ohio. The purpose of OCLC is to promote the evolution of library use, of libraries themselves, and of librarianship. OCLC's long range goals are to:

- increase availability of library resources to library patrons
- slow the rising rate of library per-unit costs
- furnish patrons and library staff with information when they need it and show them where they may find it
- enable patrons to receive personalized service
- provide management information

The overall functional design for OCLC includes remote cataloging access, circulation control, and information retrieval by subject, as well as the On-line Union Catalog and shared cataloging subsystems (operational since 1971), serials control (operational on a limited basis in 1976), acquisitions, and interlibrary loan communication. At the present time the On-line Union Catalog and shared cataloging subsystem and serials control are operating on-line. The acquisitions and interlibrary loan subsystems are in the process of development and internal testing for on-line use.

OCLC is an organization which provides nationwide services. It has some 2,000 terminals installed in 49 states, and its users participate in its policy development. Institutions in Canada, Europe and Australia access the system. The Library of Congress and the British Library have terminals through which they use the system.

Participating libraries include

RLIN

II. DESCRIPTION

A. Current Services

Stanford University is fortunate to have an unusual combination of strengths in computer science, communications, its computer center, and its research library. The integration of these components by its academic officers has allowed Stanford to develop the RLIN program and nurture it so that by the end of 1978 it is represented by a national operational network. The University has committed its resources and the talents of its officers and professional staff to the operation of this program in support of research universities and their libraries at a national level; reflecting its location within California, the University has committed similar resources and talents to the creation of a California network and bibliographic utility.

RLIN provides bibliographic services and products in a variety of modes to over 150 libraries and information centers throughout the world, with the concentration of these in North America. RLIN's resources are accessible through direct telephone dial-up, the TYMNET communications network, and dedicated leased lines. Services include searching and display of bibliographic records in any of the four RLIN online files: Library of Congress MARC records, shared cataloging records created by subscribers, Stanford University Libraries' cross-reference records, and Stanford University Libraries' in-process and on-order records. Services provided by RLIN include catalog cards, magnetic tapes of subscribers' records, catalog worksheets, automatic standing searches to match against incoming records, access to the online file of each subscriber's individual bibliographic entries, and consulting and user training.

WLN

II. DESCRIPTION

A. Current Services

The Washington Library Network provides bibliographic computer services and a range of additional services to libraries both within and outside the State of Washington. Currently available are: on-line support for acquisitions, cataloging, reference, and circulation. The Bibliographic subsystem provides access to three major files:

1) Bibliographic file--contains Library of Congress MARC and locally contributed records for monographs, serials, projected media, and government documents;

2) Authority file--consists of authorized name, series, subject, uniform title headings, and cross references; and

3) Summary Holdings file--includes local call number(s), NUC symbols, physical media codes for projected media and holdings statements for serials entries.

Acquisitions subsystem records in the In-process and Standing Orders files can be linked to Bibliographic file records. In addition, full fund accounting is available. The Circulation subsystem operates on distributed mini-computers (at present unlinked to the other subsystems) and uses Optical Character Recognition (OCR) labels and equipment.

The Bibliographic and Acquisitions subsystems can be accessed through the WLN leased-line network or standard dial-up telephone facilities. Records can be searched by system control number, title or corporate/conference keyword, name, subject heading, series, or any combination of these.

OCLC

almost every type of library: school, special, public, academic, state and governmental. Libraries vary in size from quite small institutions to the largest of research libraries. Over seventy percent of the members of the Association of Research Libraries use the system. Weekly, some 1800 institutions catalog over 300,000 books for which OCLC produces over two million catalog cards, as well as magnetic tapes for more than 300 subscribers. Participating libraries perform 93.7 percent of their total cataloging using records already in the data base.

Products and processes presently available to OCLC participants are the On-line Union Catalog, on-line cataloging, catalog cards, accession lists, magnetic tapes, and book pocket and spine labels. A major national resource is the On-line Union Catalog containing over four million records including books, serials, government documents, manuscripts, non-book materials such as films, kits, and maps, and music material. Input to create and maintain the catalog comes from the Library of Congress, the Government Printing Office, CONSER participants and user libraries. It is a fully cooperative catalog with bibliographic records input from a variety of sources.

In addition to its use as a cataloging tool, the OCLC system is a source of information for interlibrary loan, with more than 20 million location symbols attached to records in the data base.

The Serials Control subsystem provides users the capability of creating on-line files for their serial holdings with detailed information for each copy held. The check-in component automatically updates holdings statements and predicts the next expected issue. Claiming and binding control components are not yet operational.

22

RLIN

Several service levels are offered to users; RLIN's "fee for service" rate structure allows a library to choose only those services and products which best meet its needs and budget.

The heart of the RLIN system is its online files and their numerous indexes. Subscribers search the files using word, name, phrase, or numeric indexes. Search keys are not used.

WLN

Batch products include catalog cards, spine and pocket labels, computer output microform (COM) catalogs, printed bibliographies, magnetic tapes in MARC format, purchase orders, claim letters, receiving reports, and others, as required by the Participants.

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OCLC

B. Access Modes

As with any modern on-line system, access to the OCLC system is through cathode ray tube (CRT) or printer terminals connected by telephone lines to the central computer system. These lines may be dedicated high speed or general-purpose low speed lines used in dial-up mode, either directly or through a value-added carrier such as TYMNET. Most OCLC users have dedicated lines and use the OCLC Model 100/105 CRT terminal designed by OCLC and manufactured by Beehive International. As of December 31, 1978, there were 2,443 Model 100/105 terminals using the OCLC system. A variety of other terminals may be used to access OCLC via dial access. Such terminals must have upper/lower case capability, a minimum line length of 72 characters, and CRT terminals must have a minimum screen display of 24 lines.

Unless the volume of activity is low, dedicated lines are preferable, since the Model 100/105 was designed for use on the OCLC system and provides some features that require more effort to perform on non-customized equipment. Regional network or OCLC staff provide assistance in determining which communications method is best for a particular library.

RLIN

B. Access Modes

RLIN provides services in two modes: (1) on a dedicated high-speed communications line - referred to as "full-face" mode; and (2) by direct dial to Stanford or through local TYMNET connection using any general-purpose terminal - referred to as "line-by-line" mode. A Zentec cathode ray tube (CRT) terminal is used for full-face access. This terminal is specifically programmed to support RLIN's bibliographic and editing functions. As of June 1978 there were twenty-two institutions using RLIN in full-face mode, and 108 institutions using RLIN in line-by-line mode. (Some libraries use the system in both modes on different terminals.)

WLN

B. Access Modes

WLN allows access to its bibliographic data base by several types of on-line terminals or through batch requests.

In batch mode, WLN Participants can request record identifier (LC card or WLN number) or title keyword searches of the entire data base to add holdings or to produce a magnetic tape of bibliographic records. Cataloging products (cards and labels) can be requested in batch mode by record identifier (LC card or WLN number).

On-line access is available through two types of WLN Hazeltine Modular I terminals. The Bibliographic terminal (for adding cataloging records) with the full ALA character set and 48 lines of display memory fully supports all WLN functions. The less expensive Inquiry terminal has only 24 lines of display memory and does not support the full ALA character set. The inquiry terminal cannot support some cataloging functions.

Various other terminals can also be used to access WLN, but like the Inquiry terminal, most are inappropriate for adding original cataloging.

The Hazeltine MOD I terminals use IBM binary synchronous protocols and have full local editing functions. WLN uses 4800 baud multi-drop telephone lines to support the MOD I terminals. Between 10 and 15 terminals on one telephone line offer the best price/performance ratio.

As of January 1979, WLN has over 125 MOD I terminals and 10 asynchronous terminals on-line in Participant libraries.

OCLC

C. Characteristics of Users

1. Number and Types of Users

As of December 1978, over 1800 institutions are using the OCLC system. Roughly 100 of them are served directly by OCLC, either through the central facility in Columbus or through the Western Service Center in Claremont, California. The majority, 1,700 institutions, are OCLC users through membership in one of the 20 regional networks offering OCLC services.

An institution does not necessarily indicate a single library. An institution may represent many entirely separate libraries in a processing center arrangement. One such center has over 67 institutions.

Participants in OCLC fall into the following categories:

Academic	71%
Public	11%
Special	6%
State and Federal	8%
Other	4%

2. Growth Since July 1, 1977

During the period July 1, 1977 - December 31, 1978, 688 terminals were added, representing some 548 new institutions.

RLIN

C. Characteristics of Users

1. Number and type of users

The following table identifies RLIN users and their service level at the time of this writing (January 1979).

Service Levels *

Library Type	SEARCH	INSTRUCTIONAL	CAT and MAINT	Total
Academic	16	11	26	53
Public	8	0	15	23
Special	29	0	10	39
Federal/State	6	0	1	7
Other	8	0	0	8
Total	67	11	52	130

Of the shared cataloging libraries (the CATALOG and MAINTENANCE column), 22 are full-face users and 30 are line-by-line users.

2. Growth Since July 1977

RLIN began offering shared cataloging services to non-Stanford users in November 1976. Since July 1, 1977, 21 shared cataloging libraries have joined the system, as well as 19 search-only users.

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*SEARCH - search plus option of automatic standing search service; CATALOG - search, standing search, cataloging through RLIN to produce catalog cards and/or tapes and to store records in the online data base; MAINTENANCE (used in conjunction with the CATALOG function) - search, maintenance of online records to produce catalog cards as desired; INSTRUCTIONAL - used by library schools for teaching purposes.

WLN

C. Characteristics of Users

1. Number and Types of Users

As of January 1979, over 35 library systems use the WLN Computer System as on-line Participants, with well over 100 library systems subscribing to the WLN Resource Directory, a union COM catalog. Of the 35 on-line Participants, 18 are academic libraries, 3 are libraries of State agencies, and 14 are public library systems. Most libraries receive some cataloging products (cards and labels and/or a COM catalog) and all add their current cataloging (including local input) and holdings information. Specially-designated public service terminals are used to improve access to the collection and for interlibrary loan. All capabilities of the WLN Computer System are available to all Participants.

2. Growth since July 1, 1977

In August, 1977, WLN brought up its Bibliographic subsystem in an on-line mode. Between that time and January, 1979, 25 libraries have joined the original ten Participants. Testing of the integrated on-line Acquisitions subsystem was completed in November, 1978 and made available to Participants.

OCLC

D. System Start-up

Institutions considering use of OCLC processes or products may obtain assistance from regional networks or directly from OCLC. This communication may include integration of OCLC processes and products into institution workflows, physical planning, training, contractual obligations, benefits.

Start-up time varies depending on the telephone line requirements, profile complexity and terminal availability. Normally dial access users can expect to be operational within six to eight weeks. Dedicated line access may take somewhat longer (eight to twelve weeks). Terminal allocation is based on the ability of the system to serve new users and availability of maintenance personnel to install equipment. Each regional network is assigned an annual allocation of terminals, with some units held in reserve to meet emergency situations.

Profiling options for catalog card production are many and varied. These are discussed more fully in section IV.A.2.c. Catalog Cards.

Training involves instruction in the use of the terminal and the MARC formats. Training is normally provided to library staff members by regional network staff and generally requires from two to three days. Some networks monitor input of their member libraries for a limited period.

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RLIN

D. System Start-up

For its line-by-line mode users, RLIN requires six to eight weeks from the point of signing the standard agreement for start-up of production operation. User training and catalog card profiling occur during this period. Full-face mode users require a longer lead time (90 to 120 days) for terminal delivery and leased line installation. Users order the Zentec terminal from the manufacturer in Santa Clara, California, and RLIN orders leased line services from the telephone company.

Training in the use of the RLIN system at any of the service levels is available either from RLIN staff or from library networks offering RLIN services. RLIN staff offers formal classroom training and hands-on practice sessions at the user library. These sessions cover all aspects of RLIN searching and inputting. Training sessions are tailored to meet the library's specific requirements.

WLN

D. System Start-up

WLN will endeavor to provide on-line service within two months of the signing of a Principal Member contract. Consultation on implementation, including the establishment of the library's profile for bibliographic records, begins immediately. Training is conducted in a minimum of three stages:

1) Training in basic inquiry, input of holdings, and requests for cataloging products occurs as soon as the terminal is installed. Full documentation and self-instruction manuals are provided.

2) After staff have become familiar with the basic features of the system, a WLN Network Services Librarian makes a second visit to cover advanced inquiry techniques and, if required, acquisitions functions.

3) Finally, the library's cataloging staff are trained to use the MARC formats and WLN input and edit techniques. This last phase is carried out in groups with most of the instruction provided by members of the Cataloging section of the Technical Services Division of the Washington State Library.

WLN staff assume full responsibility for arranging telephone line and terminal installation when leased line service is ordered.

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OCLC

E. User Support Services

A variety of support services for OCLC users is available. These services may be supplied by network staff, OCLC or special interest groups.

NETWORK SUPPORT - Each participating network provides a variety of supporting services to members. These services include training, profiling, liaison with OCLC, billing, and other administrative support services. Some networks may facilitate document delivery services or other non-OCLC related services. Most users interact directly with their network, rather than with OCLC.

DIRECT SUPPORT - The User Services Division (USD) was established within OCLC to ensure effective support to participating networks, library staff and administrators, and potential users interested in learning more about OCLC. The Division is divided into four areas:

- Bibliographic Services Department - responsible for user interface activities relating to bibliographic support functions. Sections include Cataloging and Interlibrary Loan.
- Resource Management Services Department - responsible for user interface activities relating to the technical services functions. Sections include Acquisitions and Serials Control.
- Public Services Department - responsible for user interface activities relating to public service functions. Sections include Circulation Control, Patron Access, and External Services.
- Marketing Services Department - responsible for market oriented functions. Sections include Market Research, Information Services, and Installation Services.

RLIN

E. User Support Services

The RLIN on-line system is supported by a staff of professionals in computing and user support. The user support staff is able to provide the following:

TRAINING - An RLIN library user service representative describes the system and instructs in its use during a two-day training session held at the user site. A substantial portion of the training is at the terminal.

DOCUMENTATION - Complete documentation, written by a professional documentation staff, is provided with the system, including the RLIN Data Elements Dictionary, the RLIN Network Reference Manual, and the RLIN Network Reference Digest. Periodic Informational Notes, revision of documents, and the RLIN Newsletters provide timely updates to the system documentation.

HOTLINE - A special telephone number is used to report trouble with the on-line system. It is answered on a top-priority basis by a library user service staff member during normal working hours.

RLIN USER GROUP - Regular meetings of RLIN shared cataloging users are held to provide a forum for the exchange of information between RLIN staff and the users and among the users themselves. The sites of these meetings vary so that users from various locations can attend when the location is convenient.

SPECIAL WORKSHOPS - As needed, workshops are held to review specific areas, such as LC MARC monographic coding.

WLN

E. User Support Services

WLN Library Services Division maintains the following types of support to WLN Participants: training, documentation, communications, and consultative services.

Training - When practical, an overview of WLN Computer System services is presented to library administrators, and product profiles are completed before training. Training is provided at three levels as described in section II.D Start-up. However, with a sizable number of libraries now on-line, WLN Library Services will initiate a series of continuing training and special interest workshops.

Documentation - WLN provides appropriate user documentation and corresponding updates. Manuals for using the computer system have been distributed in draft form with the request that Participants assist in reviewing the manuals before a polished WLN manual series is completed.

Communications - Four levels of communications between WLN staff and Participant libraries have been developed for WLN. Day-to-day communications are provided by the WLN Daily News, which is displayed throughout the network of computer terminals. The WLN TECHNICAL BULLETIN serves to produce weekly summaries of the Daily News and to announce system improvements, procedural changes, and clarifications of current practices. It is available only to on-line Participants. The WLN TECHNICAL BULLETIN will be used to update WLN manuals periodically. WLN Executive Council Minutes are distributed widely as is the WLN PARTICIPANT, newsletter of the Washington Library Network.

OCLC provides both direct and indirect support to users. Documentation and training aids are major ways in which direct support is provided. OCLC publishes a "Newsletter", a "Technical Bulletin" series, "Network Memoranda", and other publications such as the I AND K LEVEL INPUT STANDARDS. The basic users' manual ON-LINE SYSTEMS has been revised in loose-leaf form for easy updating.

OCLC provides initial training for network staff and independent users, and occasional workshops for participants. Most effort is directed toward developing training aids and packages for use by network staff in their training programs. OCLC also provides staff for telephone assistance during the hours of on-line operation. Technical assistance to deal with terminal or line problems is provided by Network Control. System use assistance is provided by USD staff.

USER GROUPS - A number of special interest user groups have formed including health sciences, music and law. At least one state user group has been formed. These groups meet to discuss common experiences using OCLC and to consider enhancements needed for the system or the MARC formats.

OCLC has also established a number of advisory groups to assist in various areas, including cataloging policy and input to system design activities.

OCLC

F. System Information

1. Hardware

The on-line system operates on four Sigma 9 computers, with a communications processing system of ten Digital Communications Controls, Inc., DCC 116 minicomputers.

The system hardware configuration is currently undergoing modification. A Tandem 16 minicomputer functions as a network supervisor enabling OCLC to switch incoming messages automatically to the least busy processor. Another Tandem 16 performs as a data base processor. These two recent additions will enable OCLC to mix manufacturers' hardware for additional processor power. Two more Sigma 9's are being added for further expansion.

Off-line products - cards, tapes, accessions lists - are produced on a Sigma 7; two Sigma 9's are removed from the on-line system during the evening to provide back-up to the Sigma 7 when needed.

Some libraries have purchased or leased devices to be attached to the Model 100/105 terminal, such as hard copy printers. These printers may be used to produce worksheets or book labels. Worksheets are produced by printing a record as it appears on the screen. The paper copy of the screen display may be used for authority verification or correction.

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RLIN

F. System Information

1. Hardware

RLIN programs operate on a shared computer facility maintained by the Stanford Center for Information Processing at Stanford University. The central processing unit is an IBM 370/168 model 3 computer. A Digital Equipment Corporation PDP 11/40 computer maintains the communications links with all full-face terminals. Catalog cards are printed by an IBM 1403 high-speed printer during the night shift. Printers may also be attached to local CRT terminals.

WLN

F. System Information

1. Hardware

WLN uses the Washington State University (WSU) Computing Center in Pullman for all on-line processing, and prints its catalog products on a computer located at the Washington State Data Processing Service Center in Olympia. WSU has an AMDAHL 470/V6 II computer which is shared by over 50 other users of the WSU Computing Center. A COMTEN 3670 communications processor handles all telecommunications.

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OCLC

2. Hours of Operation

The system is available from 7:00 am to 10:00 pm Eastern time, Monday through Friday, and 8:00 am to 8:00 pm Eastern time on Saturday.

3. Down Time

Recent OCLC figures show an average weekly system availability of over 95 percent of the scheduled 87 hours of operation.

4. Response Time

According to OCLC figures, average response time for the first nine weeks of 1978 ranged from 4.9 seconds to 6.4 seconds during peak hours of system operation (9:00 am to 8:00 pm, Eastern time).

These figures represent an average of all system activity for all terminals on the system. OCLC is committed to maintaining an average response time of no more than 8 seconds. Individual users may experience longer response time due to the number of terminals on the phone line, the time of day, the type of request being made of the system, and the number of messages already in process.

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RLIN

2. Hours of Operation

On-line service is offered from 5:30 a.m. to 10:30 p.m., Pacific Time, Monday through Friday, except for 6:00 to 7:30 p.m. on Monday, Wednesday and Friday. Saturdays the system is available from 1:00 p.m. until 10:30 p.m.

System maintenance, including MARC File additions and Catalog Data File indexing, as well as batch operations such as printing of output, is performed during the night and on weekend mornings so that libraries are free to use the system during normal daytime business hours.

3. Down Time

RLIN is operational an average of 96.2% of its scheduled hours.

4. Response Time

Average response time is four seconds.

WLN

2. Hours of Operation

WLN is currently available to its Participants between the hours of 8am and 8pm Pacific time, Monday through Friday.

3. Down Time

Figures from January to the present show that the availability of the WLN on-line system was over 95% of scheduled hours of operation. This does not take into account problems with telecommunication lines.

4. Response Time

Response times regularly average 3.05 seconds over the entire 8am to 8pm operating period.

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OCLC

III. DATA BASES AND ACCESS

A. Files

The OCLC system offers participants access to an on-line union catalog of over four million bibliographic records for all types of material from a wide variety of sources.

When all subsystems are operational, the on-line data base will offer the potential for replacing card catalogs and other paper copy files, such as acquisitions files. Some libraries using the Serials Control subsystem have replaced their manual check-in files with the on-line system. Those libraries using the Serials Control subsystem build local files of serials holdings, linked to the union catalog, that are available to only the holding library.

The OCLC data base includes the complete MARC BOOKS, MARC Serials, Canadian MARC Serials, the Minnesota Union List of Serials (MULS), the Pittsburgh Regional Library Center (PRLC) serial records, CONSER (CONversion of SERials) records, COMARC (COoperative MARC) retrospective monographic records, government documents, records input by the Government Printing Office, and the records input by more than 1800 OCLC participants. Plans are underway to begin loading NLM records shortly.

Although MARC records generally begin with 1968 imprints, the imprint dates in the system reflect the wide range of retrospective input by OCLC participants. Imprint dates as early as 1501 are found in the file and more than 250 languages are represented. The OCLC data base is growing at a rate of approximately 30,000 records per week.

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RLIN

III. DATA BASES AND ACCESS

A. Files

The RLIN data base consists of two on-line computer files. The first of these is the RLIN MARC (MRC) File. This contains over half a million monograph records in RLIN record format from the Library of Congress MAchine-Readable Cataloging (MARC) program, from January 1, 1972, to the present. As each MARC tape is received from LC (normally once a week), it is added to this file. The second file is a single physical entity that contains three kinds of records; for the sake of distinguishing among these, reference is often made to three different "logical files"--the In Process File (IPF), the Catalog Data File (CDF), and the (Cross-)Reference (REF) File. This second file is added to daily by Stanford and other RLIN shared cataloging libraries and is fully indexed each night.

WLN

III. DATA BASES AND ACCESSES

A. Files

The WLN data base consists of 9 distinct on-line files in the integrated Bibliographic and Acquisitions subsystems.

Bibliographic subsystem files include:

1) Authority file--contains the authorized forms of author (including uniform titles), author/title and title series headings (traced form only), and subject headings (including uniform titles) used in bibliographic records, cross references and notes. Each heading is stored only once, with links to each of the bibliographic records in which the term is used. The Authority file contains over 1.5 million records.

2) Bibliographic file--contains all LC-distributed MARC records for books, films, serials, and Government Printing Office bibliographic records since 1968, in full MARC format, in addition to an ever-increasing number of locally-input bibliographic records in MARC format. Institution-dependent authorized added entries, subject headings and notes may be added to enhance MARC records. The Bibliographic file contains over 1.2 million unique bibliographic records of discrete titles.

3) Holdings file--contains local call numbers, physical media codes for projected media, serials holdings statements, and library identification (NUC) symbols. The Holdings file contains over 250,000 union holdings statements which are linked to appropriate bibliographic records. Over 500,000 library locations are identified in the Holdings file.

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4) Working file--contains newly-created cataloging records prior to their addition to the data base, and copies of all existing data base records that are undergoing correction; thus, the file consists of Input, Change, and Replace subfiles. Each participating library controls its own Working file, each portion of which is further subdivided into Active and Postponed subfiles. This arrangement of Working subfiles gives each Participant full control over its own cataloging and review procedures.

5) Waiting file--contains standing requests for cataloging products (cards and labels) for which a full cataloging record does not yet exist in the data base.

Acquisitions subsystem files include:

1) The In-Process file contains order, claiming, receiving, and payment records for all types of library materials in the process of being ordered or paid for by a library.

2) The Standing Orders file is an on-line history file containing information related to orders that are renewed or reordered on a periodic basis. The file is structured in the same format as the In-Process file and it can be used to handle subscriptions. Standing orders records are copied into the In-Process file for recording renewals and payments.

3) The Account Status file contains one record for each fund account within a library. Access is by a combination of library ID, fiscal year and account number. Data contained in the file include an external (alternative) account number, a description field, allocation amount, and outstanding encumbrances and disbursements by month.

OCLC

1. Union Catalog

The OCLC data base is designed to serve as a union catalog for all participants, with a single bibliographic record per title to which users add their holdings symbols.

For the purpose of card or tape production, a library may make any alterations it needs to reflect local cataloging, but these changes affect only the product. The "master" record remains unchanged, allowing other libraries to continue to use the record in its original form. MARC records loaded into the system replace participant cataloging for the same item, on the basis of a complex computer matching process.

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RLIN

1. Union Catalog

Catalog Data File records contain bibliographic and holdings information for titles cataloged through RLIN by Stanford and by all other libraries participating in RLIN's shared cataloging service. In Process File records contain some bibliographic information as well as acquisition information on titles being acquired by Stanford through RLIN. Reference File records are "see", "see also", and explanatory cross-references created by Stanford for its records in the Catalog Data File. Each record contains a holding symbol that clearly identifies the library that entered it; other libraries may use the record as a basis for their own Catalog Data File record.

WLN

4) The Name and Address file contains the names and addresses of vendors, libraries, and branches. The file also contains the acquisitions profile for each library.

Records in the Bibliographic file are linked to appropriate records in all other files except the Account Status and Name and Address files. These linkages together with the file design enable the WLN data base to keep data redundancy to a minimum. Separation of the files allows direct access to specific information and facilitates file maintenance. A file structure diagram in the Appendix presents an illustration of the WLN Bibliographic and Acquisition subsystems integrated file structure.

1. Union Catalog

The Authority, Bibliographic, and Holdings files combine to support the Union Catalog function. The Authority and Bibliographic files are made up of Collections which represent authority groups (groups of libraries that use and share in the maintenance of the same name, subject, and series authority lists). The WLN Computer System can support a number of Collections which adhere to different authority lists. Separate Collections might also be formed to distribute bibliographic maintenance responsibilities. Discrete cataloging records are shared by all Participants (libraries or library systems) within a Collection. Local bibliographic variations can be accommodated by the addition of institution-dependent added entries, subject headings and notes. The entire Bibliographic data base can serve as a complete Network-wide union catalog. Alternately, specific Collections can be utilized as separate union catalogs on-line and in WLN-produced off-line catalogs.

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OCLC

2. Data Elements

Records in the data base are in full MARC format, including fixed and variable fields. Books, serials, audiovisual materials, sound recordings, music scores, maps, and manuscripts are entered in the MARC format specifically designed for these media.

Holdings are shown by institution symbol. When a record is retrieved the system automatically supplies the main holding library for that institution in the 049 field (local holdings data). This may be modified for card production to reflect branch library holdings.

Serial holdings at the copy level are displayed in the check-in records of the Serial Control subsystem. Both bound and unbound holdings may be displayed.

3. Record Source Identification

The origin of the bibliographic record is displayed as part of that record. Such data may be carried in both the fixed field (control) area and in the variable cataloging data.

In the fixed field of the MARC format, an element "Source" contains a coded form of the cataloging source with a single character indicating either LC, original, or cooperative cataloging. These data are expanded in a variable field (MARC tag 040) which shows the cataloging history of the record in more detail. Here a user may see which institution cataloged, input and modified the record.

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RLIN

2. Data Elements

RLIN data elements are labeled with alphabetic mnemonic tags rather than numeric MARC tags. For example, the international standard book number is tagged as "ISBN" rather than "020."

3. Record Source Identification

Each record is clearly identified as to the contributing library, using an RLIN supplied library identifier. Two MARC fields in each record give further information about the source of cataloging information, machine readable transcription, and subsequent modifications.

WLN

Holdings file records are linked to appropriate bibliographic records in order to provide individual library location information in the union catalog. A holdings record contains all Participants' holdings information for a discrete title, so that all locations can be viewed at one time on one terminal display screen.

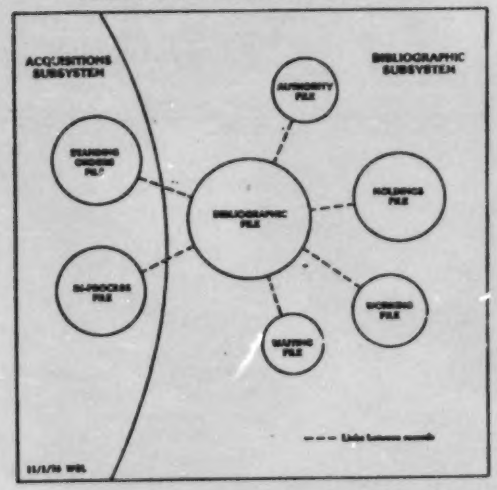
2. Data Elements

Data elements in the Authority and Bibliographic files appear with mnemonic tags which correspond to numeric MARC tags. All authority and bibliographic records must be entered in the full MARC format specified for each medium.

3. Record Source Identification

Each authority and bibliographic record contains the NUC symbol of the library which added the record. Data in the Cataloging Source field of the bibliographic records indicate the cataloging source, the inputting library, and all subsequent modifying libraries.

WLN FILE STRUCTURE



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OCLC

B. Indexes

Just as the catalog is the key to a library's collection, so are the indexes the key to the on-line catalog. Indexes are the access or entry points to the bibliographic record. OCLC provides eight indexes to the On-line Union Catalog:

AUTHOR
AUTHOR/TITLE
TITLE
LIBRARY OF CONGRESS CARD NUMBER
INTERNATIONAL STANDARD BOOK NUMBER (ISBN)
INTERNATIONAL STANDARD SERIAL NUMBER (ISSN)
CODEN
OCLC CONTROL NUMBER

Index entries are based on search keys. Search keys have been deliberately designed to be simple in structure and to accommodate user uncertainty or error. Some libraries provide terminals for public use. Consequently, it is essential that the system be easy to operate. Most people learn to search quickly. Other functions such as input cataloging, however, demand more skill.

Unique search keys (LC Card Number, ISBN, ISSN, CODEN, and OCLC Control Number) generally retrieve a single bibliographic record. The author, author/ title and title keys are not unique and may retrieve multiple bibliographic records. In the latter case, both the keys and the entries vary in length and complexity. Too, a user may not always have accurate information concerning spelling or sequence. OCLC derived search keys are designed with this in mind. The keys require a maximum of four characters per segment, but fewer may be used. The keys are called "derived" because they represent truncations of elements of a bibliographic record.

RLIN

B. Indexes

The indexes that can be used to find records in the data base depend on the type of record for which the user is looking--a MARC record, an in-process record, or a cataloged holdings record. The access points provided by these indexes are: (1) personal name (PN), (2) corporate/ conference name (CN), (3) title word (T), (4) Library of Congress card number (CRD), (5) RLIN unique record identification number (ID), (6) call number (CAL), (7) subject heading--complete or truncated (S), and (8) International Standard Book Number (ISBN). The matrix below shows (with an "X") the access points that can be used in each file.

	File			
Index	MRC	REF	CDF	IPF
PN	X	X	X	X
CN	X	X	X	X
T	X	X	X	X
CRD	X	-	X	X
ID	-	X	X	X
CAL	-	-	X	-
S	-	X	X	-
ISBN	X	-	-	-

The RLIN indexes are of three types: name indexes, word indexes, and phrase indexes. A name index is constructed to deal with the complexities of personal name searching. The full personal name in authorized form need not be known in order to find a record. (This is described in the following section.) A word index provides access to all records containing a given word or group of words. A phrase index preserves the word order of the entry.

WLN

B. Indexes

The indexes to the data base make searching on the WLN Computer System easy, powerful, and extremely flexible. All traditional access points are available to search for and to display records in the Bibliographic subsystem. In addition, several other access points are available, as shown in the following table:

ACCESS POINTS	IB	AUTH	HOLD	WK	WT	INP	STO
Record ID	X		X	X	X		
ISBN/ISSN	X		X	X	X		
Purchase Order Number						X	X
Title Keyword(s)	X			X	X		
Author (class search)	X	X		X	X		
Personal Name		X					
Corporate/Conference Name		X					
Corp/Conf Name (Keyword(s)	X	X		X	X		
Uniform Title		X					
Series (class search)		X					
Personal Name Series		X					
Corp/Conf Name Series Keyword(s)		X					
Title Series	X	X					
Subject (class search)	X	X					
Personal Name Subject		X					
Corporate/Conference Name Subject		X					
Corp/Conf Name Subject Keywords(s)	X	X					
Uniform Title Subject		X					
Topical Subject		X					
Geographic Subject		X					
Using Previous Search Results	X	X	X	X	X	X	X

BIB = Bibliographic file
AUTH = Authority file
HOLD = Holdings file
WK = Working file
WT = Waiting file
INP = In-Process file
STO = Standing Orders file

OCLC

Authors are searched with a key AAAA, AAA, A where AAAA represents the first four characters of the author's surname, AAA the first three of the Christian name, and A the middle initial. The underscore indicates these elements may be omitted. The search key for Louisa May Alcott is "alco,lou,m". A similar form, prefaced with = (equal sign) is used for corporate authors.

Author/title searches use a key AAAA, AAAA where the first AAAA represents the first four letters of the author's surname and the second represents the first non-article word of the title. The underscore indicates elements which may be omitted. The author/title search key for John Gardner's "October Light" is "gard,octo". This key retrieves all records containing this combination of characters as main or added entries.

Title searches use a key AAA,AA,AA,A, where the AAA represents the first non-article word of the title. The search key for "Everything that rises must converge" is "eve,th,ri,m".

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RLIN

The title word index contains words from title main entries, uniform title main entries, traced short titles, added entry titles, traced series note titles, and added entry series titles. The system is insensitive to the order of words in a title statement. Therefore, a garbled or unestablished title may be found from an incomplete citation. The RLIN system does not rely upon constructed search keys which require knowledge on the part of the user of the form of entry in order to construct the appropriate key to the file. By including several significant title words from anywhere in the title, the user is able to limit the search and retrieve a single record or only the specific records which match the query.

RLIN uses a phrase index for subjects because subject headings generally utilize a hierarchical structure (from the general to the specific) in indexing the topical contents of a record. An RLIN subject search for the phrase "Water - pollution" would retrieve only those records which had this exact subject heading. A search truncation technique provides for searches which request all subjects beginning, for instance, with the phrase "Water - pollution#", retrieving all subdivisions as well.

Truncation is also provided in other indexes. All personal names beginning with a known string of characters can be found. If the searcher cannot remember the exact transliterated spelling of the author Solzhenitsyn, but can provide at least three or more letters beginning with the first character, then entries may be found. Where truncation is applied to local call number searches, all books within a given classification or range of call numbers are displayed.

WLN

Appendix A and B contain: a list of access points, the files and MARC tags that are searchable, the search keys which can limit a search to main headings or subheadings ("A" or "non-A" subfields), and the search keys which can be truncated. Also in the appendices are MARC tag glossaries which define the mnemonic tags and their numeric equivalents.

Access by author, subject, or series headings can be narrowed in the Authority file to search the main heading ("A" subfield), where the search value is matched against the main part of the heading only. Access can also be narrowed so that the search value is matched only against the subheadings. If no preference is specified, both main headings and subheadings will be matched against the search value.

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OCLC

C. Searching

1. Techniques

The OCLC number is the key under which records are stored and by which records are most readily accessed. Unique numbers/codes such as LC Card Number, ISSN, ISBN, and CODEN generally provide the next quickest access. A terminal operator will choose one of these, if available, as the first search point.

By contrast, the derived search keys usually retrieve several records. The OCLC system has the capability of limiting the output of some of these keys, making them more effective.

Corporate author and author/title searches can be limited by the use of the "Stop List," which contains terms often appearing in corporate names. Terms on the stop list may be omitted from the search key, allowing the searcher to use more specific terms. For example, the search key for the corporate entry "U.S. Congress. House. Committee on Veterans Affairs" would be "=us,con,h" without the use of a stop list, but since the terms "US," "Congress," "House" and "Committee" appear on the stop list, the search key for this item would be "=on,vet,a", which would retrieve far fewer records than the former search.

Searches can also be limited by truncating the search key. If a word contains fewer characters than allowed in the search key construction, the key can be limited to the length of the word by the use of a circumflex. The author/title search key "jone, bar" will retrieve titles beginning with the words "bar", "barrier", "barrister", etc. When a circumflex is entered into the search, making it "jone,bar^" the search will be limited to only those titles beginning with the word "bar".

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RLIN

C. Searching

1. Techniques

The mechanics of searching are quite simple. The user at the terminal types in a search request composed of the basic search command, "find"; the abbreviated name of the index to be searched; and a value or values to be located. For example, one might key "find pn Leonard Woolf" ("pn" means "personal name"). This search will be tried against each of the files in turn; when a result is found, it will be displayed at the terminal. When no result is found in one file, the search will be automatically tried against the next file, continuing this process until either a record or group of records is found, or the system determines that no matching records for the value exist anywhere in the data base. When a search has located more than one record, the system displays the number of records found, and in which file they are stored.

When a search results in records found in one file, and the user wishes to search other files, the user issues the command "resume".

The order in which files are searched is dependent on the kind of activity the user is engaged in; the user specifies this in a brief "set function" command before doing anything else. (Under normal circumstances the system automatically tries the user's search request against the REF File before the CDF, since a reference record may be found that will cause the user to rephrase the search.)

WLN

C. Searching

1. Techniques

Imprecise inquiries to the WLN data base are seldom necessary, as the full set of search keys increases searching precision. Since multiple matches are expected in many cases, it is possible to display up to 20 authority headings or bibliographic records and up to 10 holdings or brief acquisitions records at a time, on a bibliographic terminal. Any list of records can be manipulated further to select a record or set of records to appear in any of the available displays (see Appendix for examples of displays). Any list of bibliographic records can be displayed in either author or title sequence. The original results of the search request can be manipulated to select as many display screens as desired without having to rekey the search request.

The file structure of the WLN Computer System is designed for efficient searching. Authority records are linked to bibliographic records which contain links to appropriate records in the Holdings, Working, Waiting, In-process and Standing Orders files. It is not necessary to rekey a command in order to search other files, e.g., the Holdings file can be searched on the basis of results of a search in the Bibliographic file. This file structure provides indirect access to the Holdings file and other files via the full set of search keys to the Bibliographic file. The precision search keys to the Authority file can also be used to access indirectly the Bibliographic file and subsequently other files.

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OCLC

When a search results in several entries, the records are displayed alphabetically in an abbreviated form, generally giving author, title, and imprint date. For example, the title search key "sat,re,," retrieved the following record display:

1 Satanic reader. Bierce, Ambrose, 1968.
2 SATURDAY REVIEW (19)
3 Saturday review. Patterson, William D. 1953.
4 SATURDAY REVIEW STEINBECK JOHN (5).
5 Saturday review. Zweis, Stefan. 1958.

Lines 1, 3, and 5 represent single records. If the item being searched is an edition of John Steinbeck's "Saturday Review", the operator will look at an expansion of the items represented by line 4. The operator types "4" and presses the Display and Send keys, and the resultant display lists the 5 records in the truncated form of author, title, and imprint date. The operator then chooses the truncated entry containing the desired imprint date, types in the line number, and examines the full record when displayed.

On the OCLC system a maximum of 256 records may be retrieved by a search key. If a search results in more than 255 titles, the terminal operator must try to retrieve the record using a different search key. Paging through 256 or more records one by one would substantially increase response time to other users.

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WLN

A scope option can be used with all inquiry searches to the Authority and Bibliographic files. The scope option allows a terminal operator to search for cataloging information on three different levels:

1) System level cataloging--searches all "Collections", i.e., all records in the data base for the desired records and displays the bibliographic records relevant to the Collection of the library which is specified by sign-on password.

2) Network level cataloging--searches all "Collections" except Collection 0 (LC MARC records) and displays the bibliographic data relevant to the Collection of the library which is specified by sign-on password.

3) Collection level cataloging--searches one specified Collection and displays the bibliographic data relevant to that Collection.

All search values can be truncated from the right, except the Record Identifier (LC card or WLN number). Only the first letter of a search key must be known in order to use truncation. Up to nine keywords can be truncated in a search value. Keywords can be used to search by title and corporate/conference author, subject, or series.

Three types of searches are available:

1) keyword searching on distinctive words (the words need not be in order),

2) subfield searching in which the order of words in a subfield must be known but which can be truncated at any point from the right, and

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OCLC

2. Boolean Operators

The OCLC system does not use explicit Boolean operators. The author/title search key contains an implicit "and", making it unnecessary for the terminal operator to say explicitly that he or she is searching for an author/title combination.

3. Hit Rates

With a data base of the size and scope of the OCLC On-line Union Catalog, the hit rate for even large collections is, on the average, 80 to 90 percent. The actual hit rate for a library depends on the nature of its acquisitions, and particularly on the uniqueness of titles acquired. Overall, the system average is presently 93.7 percent.

RLIN

2. Boolean Operators

By incorporating Boolean operators ("and", "or", "not") in a search request, the user can make a search broad or specific; these operators can be used to combine indexes in a single search request as well. For example, one might key "find pn virginia woolf and not t waves". This search would retrieve all works by Virginia Woolf in the data base except those with the word "waves" in the title. The values given for any index searched may be truncated in order to enlarge the range of results possible. Truncation allows searches to be performed even when the exact spelling of a word is not known.

3. Hit Rates

Many libraries report finding 80 to 90 percent of their current titles in the data base. Hit rates will vary with the type of material cataloged. Users are encouraged to open "search only" accounts and determine their own hit rates, as well as the quality of the records.

WLN

3) browsing Authority file headings, alphabetically sorted, by establishing the starting point from a previous search by any of the precise search keys to the Authority file. Browsing can be initiated directly when searching for geographic or topical subject headings.

Keyword searching can be done on titles and corporate/conference names used as authors, series, and subjects. Subfield searching can be used on all searchable fields except the title.

2. Boolean Operators

Extended search capabilities are available through the use of Boolean operators. A previous search result can be referenced (without being keyed again) and combined with another request using Boolean logic. For example, after obtaining a list of titles in the data base authored by Isaac Asimov, that list can be combined (without rekeying the original search) with a search for all titles that contain the keyword "Mars" to result in a list of all titles authored by Isaac Asimov that contain the keyword "Mars" in the title.

3. Hit Rates

Hit rates on the WLN data base vary considerably depending on the type of library. For current acquisitions (imprint of 1968 or later), most public libraries report a hit rate of 85-90%. For academic libraries with special collections the hit rate is somewhat lower. Currently less than 15% of the WLN data base represents local cataloging; the rest is from the MARC subscription service. However, the percentage of local cataloging is increasing with the addition of more Participants, many with specialized collections, and a greater increase is expected through impending

retrospective conversion projects. Thus the hit rate for all types of libraries should continue to improve.

Also, with the full set of search keys available, as described in section III.C, searching on the WLN data base is very flexible and can provide even greater precision by using the Authority file to locate records in the data base when the only available information results in an inefficient search against the Bibliographic file.

OCLC

D. Data Base Quality Control

The quality and integrity of the On-line Union Catalog are vital factors in achieving OCLC's goal of slowing the rate of rise in unit processing costs for participating libraries. The On-line Union Catalog is a cooperative data base and its quality is mainly determined by the quality of the cataloging done by individual libraries. To assist in maintaining and improving this quality OCLC provides standards, error detection routines, and error correction reporting procedures.

1. Standards for Input

OCLC has recently published the I and K level standards for user input. I level records are full MARC records as defined by the Library of Congress, but input by a participating institution. K level records contain the same quality of cataloging as I level records, but some data elements are omitted. OCLC is working on commands which will allow any member to upgrade K level records to I level. They will also allow the addition of missing data, such as the ISBN, to existing I level records.

OCLC has recently established the Inter-Network Quality Control Council. Its membership has been drawn primarily from participating networks and is composed of network members, network staff, and OCLC staff. Its goal is to improve the quality of the On-line Union Catalog. It has indicated that one avenue of improvement lies through better training to libraries and feedback on errors they have made. It makes recommendations to OCLC and to networks for improvements. The Council is also concerned with the need for rapid pro- cessing of error reports and correction of MARC records by the Library of Congress.

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RLIN

D. Data Base Quality Control.

To provide its users with the highest quality data possible, RLIN's pricing structure includes an incentive to those institutions undertaking original, complete cataloging; there is a financial disincentive for incomplete cataloging. Stanford's decision to establish such a pricing structure is consistent with its dedication of the RLIN program to a bibliographic data base of the highest quality.

1. Standards for Input

To maintain a data base of records that conforms as nearly as possible to records issued by the Library of Congress in MARC format, RLIN bases its standards for cataloging on the ANGLO-AMERICAN CATALOGING RULES, supplemented by the descriptions of Library of Congress practices announced in the LC CATALOGING SERVICE BULLETIN. It is the intention of RLIN to continue to use the Library of Congress as a model for cataloging standards.

Stanford takes many steps to insure the integrity and recoverability of data entered into the RLIN system. The entire data base is copied to tape twice weekly and one set of tapes each week is stored offsite in a protected vault. In addition, daily deferred update queues, which contain all the revisions, additions, and deletions for a given day's user activity, are transferred to tape each night before processing; these tapes are kept for five weeks. RLIN data base update software has a checkpoint and recovery mechanism built into it to correct the data base automatically if a program or system failure occurs.

WLN

D. Data Base Quality Control

WLN Participants are committed to developing and maintaining a high quality data base. Extensive training of Participants in MARC tagging and Input/Edit techniques, the Authority Control module, and human and automatic review (fully described in later sections) at the library and the Network level contribute to this effort.

1. Standards for Input

WLN Participants have agreed to accept Library of Congress' choice and form of main entry, subject, and added entries, and descriptive cataloging practices. AACR, ISBD, and the MARC formats are rigorously adhered to for original input, and all applicable data elements in the MARC formats are mandatory for input. All name, subject and traced series in LC MARC and in original input cataloging are under strict control of the Authority Control module to assure adherence to established standards.

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OCLC

2. Automatic Input Data Error Detection

Error detection requires a standard against which data input can be measured. This may involve the presence, the absence, or a value range of certain data elements. The complexity and variability of bibliographic data make automatic error detection difficult. While it may be argued that every item should have a title, authorship may be more difficult to identify. Consequently, mandatory data elements are few in number. Validation routines concentrate mainly on fixed field elements and on correct use of tags, indicators, and subfield codes.

Duplicate records (i.e., cataloging representing the same title) cannot always be detected by edit routines because of variations in choice of entry, where title information was obtained, and the absence of ISBN or LC card numbers for some materials. The update program for MARC records eliminates any duplicates it detects while adding new MARC records to the data base.

3. Record Validation Review

Each institution performs its own record validation. It is assisted in this by automatic error detection and later by error reports. Members of the same network will often notify each other if they discover an error in a record input by another network member. This procedure allows an institution to correct the error before it becomes a formal error report. Errors may be corrected this way as long as another institution has not already used the record for catalog production.

OCLC staff do not review every record input by members. In addition to the sheer magnitude of the task, it is contrary to OCLC's basic philosophy of cooperative effort.

RLIN

2. Automatic Input Data Error Detection

RLIN users may choose to have their data edited to check for the presence of the appropriate indicators and delimiters, for the presence of certain required information, and for the form of input in certain fields. When the system detects a mistake it displays an error code next to the data element that contains the error. The record cannot be entered into the data base until the error is corrected.

3. Record Validation Review

No systematic record validation review is conducted. Users detecting errors in other users' source records may report these to RLIN for correction.

WLN

2. Automatic Input Data Error Detection

Locally input bibliographic records undergo human review and machine edits both at the originating library and at the Network review level. The automatic edit programs check for MARC format errors, e.g. incorrect tags, invalid tags, invalid subfield codes, nonrepeatable tags or subfield codes, or errors in non-filing character indicators.

3. Record Validation Review

Participants may input new records and, under certain circumstances, may initiate changes or delete records. These activities all begin in each library's own Working file (see IV.A. for Working file), where new records and/or changes are stored until adequate local machine and human reviews have been accomplished. The new and/or changed records are then routed to the WLN Working file for machine and human review. Explanatory messages for the WLN review staff may be appended to the record when necessary. The review process at the WLN level is performed to insure that there will be only one record residing in the data base for a single bibliographic item. Headings

OCLC

Further, OCLC would require access to the piece being cataloged and the same tools used by the original cataloger in preparing the input record. Seven years' experience has taught us that what appears as an error is sometimes the result of faulty copies or differing choice of rule options.

4. Correction of Errors after Input

Participants are encouraged to report any errors found while using the system. Errors affecting access points are corrected as quickly as possible, usually within twenty-four hours. Duplicate record reports are processed as time permits. A high priority has been given to eliminating serial duplicates. Errors reported on Library of Congress MARC data are forwarded to the Library of Congress for processing.

Once an error has been corrected, a copy of the error report is sent to the inputting library. This feedback assists in lowering error rates. OCLC monitors the number and type of errors made by each library. Statistics are sent to networks regularly. Network staff, or OCLC in the case of independent institutions, contact libraries having high error rates; remedial action, such as retraining, is taken as appropriate.

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RLIN

4. Correction of Errors after Input

Since the user's records are always available on-line for their use and maintenance, correction of errors after input is easily accomplished in RLIN. Corrections may be made to the on-line system at the user's command, and replacement cards may also be requested.

WLN

are easily verified in the Authority file and descriptive cataloging is reviewed. If a problem is identified, the record is returned to the library's Working file with a message explaining the problem and asking for correction, or the record can be corrected by the WLN review staff. Records verified as correct are routed to the Verified Record Output file to be processed in batch mode and added to the data base overnight. Interim records (see IV.A.1.c. below) are added to the data base immediately in an on-line mode.

4. Correction of Errors after Input

Participants can initiate a change to or deletion of a record in the data base. As described in III.D.3., these modifications begin in a library's Working file and are ultimately reviewed at the WLN level before permanent changes to the data base are effected. All Working files can be searched to determine if a record is currently undergoing change. The distribution and relative ease of data base maintenance facilitates prompt error correction and improved quality control.

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OCLC

E. Authority Control

OCLC does not presently provide an integrated authority file control system. It is currently working on the design of such a system, described more fully under section IX.

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RLIN

E. Authority Control

At the present time, no RLIN authority file is maintained. However, Stanford University Libraries' Reference file is maintained on-line and can be accessed by RLIN users.

WLN

E. Authority Control

WLN's Authority Control module maintains an Authority file containing the authorized form of author headings (personal, corporate, meeting and conference names, and uniform title headings), author/title and title series headings (traced form only), and subject headings (topical, geographic, personal, corporate, conference names, and uniform title headings). These headings are added to the Authority file in one of two ways:

1) as bibliographic records are added to the data base, author, subject, and traced series headings are removed from the record and links are made to the bibliographic records and the headings, or

2) authority headings and their related cross references and notes are added locally by WLN staff using an on-line terminal.

Library of Congress and locally-added bibliographic records can contain subject headings from the following authority lists: Library of Congress subject headings, Library of Congress Children's headings, National Library of Medicine medical subject headings (MeSH), National Agricultural Library subject headings, and National Library of Canada subject headings in English and French. These various types of headings all reside in the WLN Authority file and are clearly identified to avoid possible conflict.

Cross references that are added to authority records include: "former name" and "later name" references, "see" references, "see also" references (all of which appear in the WLN Resource Directory and other catalogs),

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and "used for" and "refer from" references, which indicate that "see" and "see also" references, respectively, have been made. Some authority records contain notes which explain the usage of a heading (scope notes), give references to categories of headings ("see" and "see also" notes), provide information on the use of a catalog (catalog use notes), or verification information (verification notes). All notes, with the exception of the verification notes, are included in the WLN Resource Directory and other catalogs.

By using the Authority file, each heading is stored only once in the data base, with links to each of the bibliographic records in which the heading is used. Utilization of file links is a more efficient method of computer storage and retrieval than retaining the text of the headings in bibliographic records. Also, with headings in a separate homogeneous file, retrieval from the Authority file is greatly expanded over access to the Bibliographic file by allowing searching by author/title/series, by main headings or subheadings, type of heading (e.g. personal name/title series), and keyword retrieval for corporate/conference headings (authors, subjects, and traced series).

Reports are generated to assist WLN staff in the maintenance and quality control of the Authority file. Changes and corrections to the Authority file are made using the Working file Input/Edit capabilities of the WLN computer system.

OCLC

F. Command Languages

Command languages in the use of the OCLC system fall into two categories: those handled by special purpose keys on the terminal and those constructed by the terminal operator.

The special function keys of the OCLC Model 100/105 terminal send specific commands directly to the computer system. These keys initiate such commands as the sending of data to the computer, the display of requested data, the production of cards, the updating of holdings, and the deletion and insertion of data.

Operator commands consist of simple two or three character abbreviations. Examples are "ns" to view the next screen, "ps" to see a previous screen, "ca" to cancel holdings on a record, and "all" to request a display of all records included in a truncated screen.

G. Formats

1. Display Formats

When a single bibliographic record is retrieved in a search, it is displayed with MARC tags and includes both fixed and variable fields. If the searching institution holds an item, this information is displayed at the top of the screen. A display of all library holding symbols may be requested.

When an extended search results in several records retrieved, they are displayed as described in Section C. Searching.

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RLIN

F. Command Languages

The command language used by RLIN is based on natural language text and requires no previous computer experience on the part of the user. Commands may be abbreviated to three letters, e.g., fin for Find, dis for Display. Formats used for data input are designed to facilitate the use of the system by paraprofessional employees.

G. Formats

1. Display Formats

When the user has a set of records to look at in response to a search request, the system provides "paging commands" for examining the search results, as well as a choice of display formats. The basic formats permit the user to see a very brief subset of information from the record (SHORT); a presentation of the record's contents similar to a catalog card (PARTIAL); a fairly complete display of the record's contents with any holdings information appended (LONG); or a list of all the information in the record prefixed by data element mnemonic tags.

WLN

F. Command Languages

The format of the search/command language in the Bibliographic subsystem consists of:

1) command--to indicate the file to be accessed;

2) key ID--to specify the search key to be used, e.g., author, title, etc.;

3) search value--e.g., author's name, keywords of title, etc.

4) options--to specify scope of the search, type of display, and sort order.

Appropriate key ID's are used in common by all commands and search values are formatted the same way according to the key ID, despite a variation in commands. The first line of the display screen remains visible after a request is satisfied so the same command or series of commands can be used or modified more than once without rekeying.

G. Formats

1. Display Formats

A display option can be used with all inquiry searches to the Authority and Bibliographic files.

Four different levels of display may be specified for authority records:

1) Complete--with MARC tags, content designators, Collection IDs and all references and notes;

2) Full--catalog card style display with Collection ID, "see" and "see also" references and scope notes;

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OCLC

An additional display format is available to those libraries using the Serials Control subsystem. This display format shows the author and title of the serial record, the ISSN, the frequency, and the regularity of the piece. The user may then add local information, such as location, call number, current and retrospective holdings, and any comments. Claiming and binding information may also be added to the record, but only the automatic check component of the system is operational.

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WLN

3) Heading--the heading itself with mnemonic indicators that refer to the type of heading (LC, MeSH, NAL, etc.) and an indicator if there is a cross reference to the heading; and

4) Summary--specifies the number of records retrieved by the search request if there are too many headings to display on the two-page display screen.

When only one record is retrieved, the Full display is used to show references unless another display is specified by the terminal operator. If more than one record is retrieved, only the headings without references but with appropriate indicators can be displayed.

Five different levels of display may be specified for bibliographic records:

1) Complete--all bibliographic and system control data with MARC tags and content designators;

2) Full--a catalog card style display with some system control data;

3) Index--a full display without tracings, notes (except for summary notes), or system control data;

4) Minimum--a brief subset of the Index display;

5) Summary--a report of the number of records retrieved by the search request.

Records will display in author order by main entry followed by title main entries, unless records are requested to display in title order. Complete and Full displays can be presented when only one record is retrieved. If fewer than five

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records are retrieved on a bibliographic terminal, the Index display is presented. If more than five records are retrieved, the Minimum display is presented. If more than twenty records are retrieved, no records are displayed, but the Summary display is presented. If no display option is specified, the default is to Index display.

If the number of records retrieved by a search request does not allow a specified display to be presented on the screen, a record or set of records within the allowable limit can be selected to be presented in the specified display. The original results of the search request are not lost and can be manipulated to select as many display screens as desired without the need to rekey the search request.

Up to ten Holdings file records may be displayed at one time. Each holdings record is complete with all call number variations, projected media codes, serials holdings statements, and library location (NUC) symbols.

Working file records may be displayed one at a time on an edit screen (described in the section on Input Formats). A Waiting file search will display up to twenty records at a time of Requests for Cataloging Products waiting for a particular title. Elements included are: library (NUC) symbols, library call number, number of copies needing products, and the date the request was entered.

Up to 10 In-process or Standing Orders file records can be displayed at a time, based on the results of a search in the Bibliographic file. These

OCLC

2. Input Formats

The OCLC workform or input display is a single screen and an outline of the MARC format, allowing the terminal operator to use existing data elements or add fields as needed. Each type of material has a different MARC format and, consequently, a different workform. The basic structure is the same, but fixed field items and some tags may vary.

As an alternative to using a workform, an existing record may be used to create a new record, reducing the amount of time required to input cataloging. If a terminal operator finds a record in the data base which represents an earlier edition of the work he/she is entering, he/she may use the "NEW" command. By typing in the command "NEW" at the top of the displayed record, the operator receives a copy of the record with some fields deleted (e.g., card number, call number, ISSN). The operator needs only to fill in these blank fields and make any necessary alterations to input a new record, a much faster process than entering a complete record on a blank workform.

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RLIN

2. Input Formats

The cataloging input formats used for on-line record creation are divided into four parts, permitting rapid access to each data element for ease of modification. The four CRT screen formats are:

Bibliographic Control Format--containing fixed and variable LC MARC tags;
Bibliographic Input Format--containing the main entry and description proper;
Additional Bibliographic Input Format--containing the record notes and tracings;
Holdings Input Format--containing the local call number, location, and various local data.

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displays are available to any Participant and contain only "non-sensitive" data. Access to a full in-process or standing orders record is available by purchase order number and only to the library which input the record, unless other arrangements are made. Any or all parts of an acquisitions and accounting record can be displayed by the library which input the record.

2. Input Formats

Local input of cataloging records is done on a form displayed on the computer terminal. Block transmission of input records allows an entire record to be placed on the terminal screen, scanned by the typist, and corrected before being sent to the Working file. A Participant library can review and edit its own input, correct any errors, and route a corrected record from its own Working file to the WLN review subfiles for a further review by the WLN staff.

A segmented input screen is available for bibliographic records containing too much data to be included on one screen (over 48 lines). Special screens are also provided for adding library-dependent added entries, subject headings, and notes. Specially formatted screens are used for requesting cataloging products and for creating in-process records. All input screens have machine-editing features.

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OCLC

IV. PROCESSES AND PRODUCTS

A. On-line Cataloging

The Cataloging subsystem was designed to achieve the goals enumerated in Section II, Description. It is based on cooperative shared cataloging. Original cataloging for most OCLC members is less than eight percent of their total cataloging activity.

1. Processes

Just as a library's catalog is essential to full and effective use of its collections, so too is OCLC's On-line Union Catalog essential for cataloging source data. Institutions may use a record as it exists, modify it to reflect a new edition or local practice, add copies to an existing record, or create a new record.

a. Use of an Existing Record

To use an existing record, the terminal operator determines which entry point to search and enters the search key. This process may be repeated until a matching record is found or until all entry points have been searched. On finding a suitable record, the operator verifies that it matches the item in hand, and that the information present is satisfactory.

The main library or collection symbol automatically displays on the screen. If the book is for this collection, the operator presses the key marked "PRODUCE". If the book is for a branch library or another collection such as reference, the operator modifies the collection symbol to represent this collection, and again presses the "PRODUCE" key. A message displays on the screen informing the operator that the action has been completed. The operator may search another item, log off, or proceed as appropriate.

RLIN

IV. PROCESSES AND PRODUCTS

A. On-line Cataloging

Four cataloging activities of differing complexity are described here: (1) copy cataloging using MARC records; (2) cataloging using MARC cataloging copy requiring changes to the main entry, a series note, and the addition of a new subject heading; (3) original cataloging requiring a record fully compatible with MARC II format; and (4) added copy cataloging.

1. Processes

a. Use of an Existing Record

With book in hand, the operator searches the files for cataloging copy. The operator examines the resulting displayed records and compares them with the copy in hand. He/she then calls for a display of the entire matching record in the Long Data Display format. Observing that no elements need modification, the operator calls for the Holdings Input format. With this format, if the subscribing library had indicated that it uses the LC call number format, the LC call number in the record appears in the local call number field. The operator uses the TAB key to reach the branch field and keys in a branch name. He/she then keys in a copy number. The operator then gives the "enter" command. Upon entry, an ID number is immediately assigned to the record and displayed to the operator. All the cards required by the transaction according to the user's card profile are generated that night.

WLN

IV. PROCESSES AND PRODUCTS

A. On-line Cataloging

The use of the WLN system for on-line cataloging involves:

1) the building of the data base through addition of LC MARC records and local original cataloging records;

2) the request of cataloging products (cards and labels); and

3) the addition of holdings information to support the union catalog function.

1. Processes

The following sections describe the creation and use bibliographic records as part of the process of building the on-line catalog.

a. Use of an Existing Record

A terminal operator searches in the Bibliographic file for a record that precisely represents the item to be catalogued. If an exact match is found, a Request for Cataloging Products (RCP) screen is requested. The library has determined in a products profile the quantity of card sets per title and per copy, extra main entry cards per title and per copy, and label sets which will be required to process a book, serial, or film. If a different number of card sets, main entries, or label sets is required, the profile option can be overridden on the RCP screen. Call number and subject source of subject headings options can also be overridden. The information is then sent to the computer system, causing products to be printed. Holdings information can be added at this time simply by supplying a call number and special data for films and serials.

OCLC

b. Editing an Existing Record

Similarly, after searching and retrieving a record, the operator may wish to modify it. The item in hand may be a new edition or the library may use a different form of entry, series, or call number.

The operator may delete unwanted information, enter new information, or modify the screen display. To delete, the "DELETE" key is pressed. This key allows the operator to delete parts of a field without affecting wanted data. To insert data, the "INSERT" key is pressed. This key allows data to be entered anywhere in the field being modified, without disturbing data to be retained. New fields may also be added by entering the correct MARC tag, indicators, subfields, and the entry itself.

After all modifications are complete the operator can request cards as described for an unmodified record. Any changes made will appear on catalog cards produced for that institution, the printed accession list, and on the library's MARC formatted tape. The latter two items are available on a subscription basis to all members. The tapes may be useful for local purposes, such as COM catalog production or circulation.

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b. Editing an Existing Record

With book or worksheet at hand, the operator searches the files as above. Changes required in cataloging may have already been noted on a worksheet. For example, the operator may call for the Bibliographic Input format and then tab to the main entry - personal name field to add an author's birth date. The operator then calls for the Additional Bibliographic Input format. The system edits the first format for conformity with the MARC format requirements. If an error is detected (e.g., an invalid delimiter or indicator, a missing main entry or title, an invalid mnemonic tag, etc.) the format is redisplayed with appropriate error codes appearing before the elements in question. The operator corrects the entry and retransmits the format. If no error is detected, the second format is then displayed. The operator tabs to new input areas at the bottom of the format and adds a new subject heading. Noting that the MARC record gives the series in an untraced form, the operator changes the value of the series note tracing indicator field from untraced to traced by keying in a value of "Y." The operator then calls for the Holdings Input format, and if no errors are detected, the operator processes this format as indicated in the previous transaction. Catalog cards will be produced as above. The revised record will be retained online where other libraries can use it, and where the holding library can modify it at a later date (see Added Copy Cataloging below).

WLN

So that the on-line holdings information can more accurately represent items that are actually available for resource sharing purposes, holdings information is generally entered only after an item has been fully processed.

b. Editing an Existing Record

Participants have agreed to accept LC's choice and form of entry and to adhere closely to LC's descriptive and subject cataloging practices. Consequently, if a bibliographic record represents the item to be cataloged, no editing need be done to conform to local practices. Although Participants have agreed to accept LC's records they can input "library-dependent" or local added entries, series added entries, subject headings, and notes. All libraries are able to access the record through the locally added headings, although those headings will appear in the on-line display only for the library that added them. Library-dependent data can appear on the library's catalog cards or in a local catalog. Errors in a record are handled through the normal change procedures (see III.D.4.).

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c. Original or Input Cataloging

If, after searching the appropriate entry points, the terminal operator finds no matching record in the On-line Union Catalog, he/she may create a new record and add it to the Catalog. A workform may be retrieved and completed, or data may be entered on an empty screen.

The procedure for original input varies with the institution. In some libraries the cataloger creates and enters the record directly. In others a worksheet is completed by the cataloger for later entry by a terminal operator. Cataloging may be either original cataloging or a transcription of non-MARC LC cataloging.

The cataloger or operator enters the record in MARC format with the necessary tags, indicators, and subfield codes. The record may be entered into the On-line Union Catalog and cards produced on entry, or it may be stored temporarily for review or revision in the SAVE file. Data stored in the SAVE file are available only to the institution entering them and accessible only by the SAVE number. As soon as the record is released to the On-line Union Catalog it is immediately available to all participants under all entry points. OCLC recommends that institutions enter cataloging directly into the On-line Union Catalog whenever possible so that maximum benefit may be gained by all participants of original cataloging input.

If the SAVE file is used, the terminal operator should re-search items before releasing the record to the On-line Union Catalog, because another institution may have processed the item in the interval between storage of the item in the SAVE file and its retrieval for entry and card production.

RLIN

c. Original or Input Cataloging

With an original cataloging worksheet at hand, the operator searches the files before beginning to key in the record. If no matching record is found, the operator gives the "create" command. In response to this command, the system presents the Bibliographic Control format, so that the operator can key in all appropriate MARC format control data elements. The Bibliographic Control format displayed for such record creation is a "fill in the blanks" arrangement. All the appropriate data element mnemonic tags are there with blank fields following, waiting for the operator's input. The operator then "enters" this format for processing, and if no errors are detected through the system editing, the data are accepted. Next the operator fills in bibliographic data on the Bibliographic Input format, in this case supplying all mnemonic tags, data element values, indicators, and delimiters. Indicators and deliniters are required and edited only if the library wishes to catalog at the full MARC II level. The operator may call for the Additional Bibliographic Input format in order to provide notes and tracings. Finally, he/she uses the Holdings Input format to key the local call number, branch name, copy numbers, and other shelf list information (e.g., vendor name, price, cross reference history, etc.). He/she then enters the record into the system for generation of the desired products. (Note: this process requires that a maximum of four filled-in formats be sent to the computer. Where the user has an RLIN terminal and is operating in full-face mode, this requires only four transactions, or four response times, not one per data element as in line-by-line mode.)

WLN

c. Original or Input Cataloging

A thorough search of the data base (LC card number and title keyword searches are usually sufficient) should be performed to locate the correct bibliographic record for an item. If no record can be found, an Interim abbreviated bibliographic record can be added on-line. It functions as a place-holder in the Bibliographic file until a full record is available to replace it. If the library plans to catalog the item, this intention is indicated on the Interim record. WLN requires that the National Union Catalogs be searched before a title is cataloged originally and added to the data base. A library that wants to catalog but does not have access to the NUC can attach to the Interim record a request to the WLN staff to perform an NUC search. The Interim record is the one type of record that updates the data base on-line rather than in batch mode. As it is indexed immediately, all participants have instant access to the brief record and the indication of another library's intention to catalog. If there is one Interim record for a title in the data base no other library may add another one.

The library then completes a Cataloging Worksheet, a standard form supplied by WLN to all Participants, and enters cataloging data in the Input subfile of its own on-line Working file. The record can be saved, retrieved, reviewed, and submitted to machine edits for tagging errors while in the local Working file. The library routes the full record to the WLN Working file for review, verification, and addition to the data base. A machine link between a Working file record and the appropriate Interim record allows the Interim record to be replaced by the full record from the Working file.

OCLC

d. Added Copy Cataloging

Multiple copies of books may be processed on original entry or use of a record, or may be processed later. There is no charge for adding copy information to the On-line Union Catalog. If catalog cards are desired for additional locations, the cards are available at the standard rate of 3.6 cents per card (prepayment results in an actual per card charge of 3.4 cents).

To add copies, the terminal operator enters the holding symbol for each copy location, enters the word "all," depresses the "PRODUCE" and "SEND" keys, and a complete set of cards will be produced for each location. Libraries may easily control what cards are produced through their library profiles. They may produce different cards for different locations or even additional cards, if so profiled.

2. Products

a. Standing Search Request Forms

OCLC does not produce standing search request notices since it views these as a contradiction to the cooperative nature of OCLC. Each member is expected to catalog items as received, making them available to library users as rapidly as possible.

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d. Added Copy Cataloging

To perform added copy cataloging a user need only search his/her own CDF for the established record. After finding the bibliographic record, the user calls for the Holdings Input format and inputs the required branch, the file is automatically updated, and the requisite products (cards, tapes) are produced.

2. Products

a. Standing Search Request Forms

If a record is not found for material that is within the scope of LC MARC, a searcher may choose to issue the "keep" command to initiate a standing search. These search requests as input by the user are stored by the system in the Standing Search Request (SSR) File and matched against additions to the RLIN MRC File by the batch standing search request program. This program is run on the third weekend of each month.

WLN

d. Added Copy Cataloging

If multiple copies are cataloged at the same time, a terminal operator need only indicate the number of copies on the RCP screen.

If an added copy is cataloged at a later date, the terminal operator merely retrieves the bibliographic record, requests the RCP screen, specifies the number of copies being cataloged if more than one, and "sends" the screen. If library-dependent data were added the first time the record was used for cataloging, those data will be displayed on-line and will be printed on new cataloging products. If a library modified the call number in any way for the first copy cataloged, that call number can be displayed in the Holdings file to ensure that the same call number is used on subsequent copies.

2. Products

a. Standing Search Requests

Requests for cataloging products can be entered into the Waiting file in anticipation of the addition of a full MARC record. When the appropriate record enters the system, either through the LC MARC tapes or as original input, products are automatically printed and mailed.

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b. Input Worksheets

OCLC does not print worksheets centrally. Libraries may produce a worksheet using a printer attached to the OCLC Model 100/105 CRT terminal.

c. Catalog Cards

OCLC has been described by some as one of the largest catalog card producers. Indeed, 1,750,000 cards are printed every week. Card production, while important for participating institutions, is really only an interim and incidental activity. OCLC's ultimate goal is full on-line access to all elements of bibliographic and location data for all participating institutions.

Cards for all MARC formats, including serials, are produced for each library based on its profile. The profile determines what cards are to be produced, what information is used, and the format of the card. The OCLC profile offers libraries the capability to customize cards to meet their specific needs. The profile can accommodate nearly any card format used in local cataloging practice.

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The search request record will be kept in the SSR File for a designated period unless it is successfully matched before that time. Three months is the default period. The user may optionally specify an alternate number of months for retaining the search by keying a number after the command.

Standing searches are removed from the SSR File automatically when (1) a match against a single MARC record is made or (2) the time limit for the search request has expired. Standing searches may also be deleted at user option by issuing the "remove SSR" command.

b. Input Worksheets

Input worksheets fall into two categories: (1) system-generated worksheets printed at RLIN and mailed to the subscriber, and (2) worksheets printed locally at either a line-by-line or full-face terminal station. Such worksheets are intended for use with records requiring checking, revision, or modification in order to represent a library's cataloging.

During online searching, terminal operators may request worksheets printed by RLIN by giving the "worksheet" (wor) command for a record they have found. This worksheet is printed on a high-speed line printer using the ALA print chain. The five-inch by eight-inch form, consisting of original and carbon copy, is printed at night and mailed to the subscriber the following day.

WLN

b. Input Worksheets

WLN supplies cataloging input worksheet forms to all Participants. The worksheets are formatted to correspond to the on-line display for easy input of cataloging data. Most Participants input their original cataloging from these worksheets.

c. Catalog Cards

WLN produces catalog cards for only full MARC records in the data base; brief or Interim records will not result in card sets. The cards are printed on 75mm by 125 mm Perma-Durable medium weight card stock. The standard ALA print train is used on an IBM 1403 high-speed printer. Cards are currently mailed weekly. WLN is considering more frequent mailings.

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OCLC users may vary the content of each type of card, choosing, for example, to have only the shelf list and main entry cards contain complete tracings. Libraries may also choose to have local notes print only on the shelf list card, and thereby use the local notes for acquisitions information. It also allows the option of different catalogs and sequences for branch libraries.

The OCLC Standard Profile offers limited options in terms of call number format, but otherwise allows a library to choose options such as subject headings format, the indentions to be used, or the uniform titles to be printed.

When cards arrive at the subscribing library, they are ready to be filed. They contain overtyped added entries, location stamps, and oversize designations. Cards are arranged alphabetically or by call number, depending on the type of card, and do not need to be sorted upon receipt.

OCLC card production staff maintain quality control during production, and cards found to be of poor quality are immediately reprinted. If cards are damaged, lost in the mail, or unsatis- factory in quality, OCLC will either reproduce the cards at no cost to the library or will give it credit for their cost. If only a few cards in the shipment are unsatisfactory, the library usually reproduces a second set through the system and receives credit for the unusable cards.

The cards are a standard 75mm by 125mm size and are on Permalife card stock. The print font is a modified version of the ALA print train, containing nearly all the diacritics and special characters contained in the MARC character set.

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Line-by-line users may print worksheets locally by displaying records on the Full Bibliographic Display format and saving the printed copy. Full-face users who have both Zentec 9003 CRT terminals and associated printers will also be able to print worksheets locally.

c. Catalog cards

When cataloging input activity has been completed, the RLIN batch programs produce the required catalog cards. Cards are printed on high-quality card stock; the full American Library Association print train is used to produce all necessary characters, punctuation, and diacritical marks. The cards are produced and sorted for filing into the appropriate catalog.

At any time after a book has been cataloged, the bibliographic and holdings data may be modified on the holdings update format, and new catalog cards requested. Reclassification, recataloging, transfers, discards, and other catalog maintenance changes may also be done. The new status of an item will then be displayed on-line for that title.

WLN

Cards sets and label sets are printed according to a library's product profile(s), which determines the quantity and content of products. A library can have multiple profiles to meet its varying needs for cataloging products. Profile options include choice of subject heading sources (LC, LC Children's, MeSH, NAL, NLC) and choice of classification schemes (DDC, LC, NLM, Washington State Document number). Call numbers can be formatted as desired, and library-dependent added entries, series added entries, subject headings, and notes can be added. All profile options may be overridden by the terminal operator if necessary. If cards are damaged in mailing or are defective, the library may reorder them on-line and receive credit for the original set.

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d. Book Card, Pocket, and Spine Labels

Two options are available for locally printing book card, pocket, and spine labels. Libraries may print them at either 4 or 6 lines per inch. The spine label contains only the call number. The book card and pocket labels include the call number, author, and title. After producing catalog cards, the terminal operator requests the desired label format and depresses the print key to generate the labels. Multiple sets may be produced.

e. Catalogs, Book Form and Computer-Output Microfilm

OCLC does not produce printed or COM catalogs, but many vendors offer these services using the OCLC-MARC Tape Subscription Service. Names of these vendors can be obtained from participating networks or OCLC.

f. Special Bibliographies

OCLC does not produce special bibliographies at present. Some users have done so using the SAVE File and local printers.

g. Accession Lists

User libraries may subscribe to OCLC's Accession List Service. Lists may be obtained in several sequences, formats, and frequencies. Lists may be in call number or subject sequence, printed on unlined white paper or multilith duplication masters, and be semi-monthly, monthly, or quarterly.

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d. Book Cards, Pocket, and Spine Labels

These products are not presently available.

e. Catalogs, Book Form and Computer-Output Microfilm

These products are not presently directly available from RLIN. However, the magnetic tapes received by libraries from RLIN are often used to produce such catalogs via a commercial vendor.

f. Special Bibliographies

Not directly available through RLIN.

g. Accessions Lists

Not presently available.

WLN

d. Book Cards, Pocket, and Spine Labels

Spine and pocket/book card labels are a standard profile option for WLN Participants. A label set contains two book-pocket type labels and one spine label. Printed pocket labels include author, title and call number; spine labels include call number only. Many Participants use main entry cards in book pockets.

e. Catalogs, Book Form and Computer-Output Microfilm

WLN produces the WLN Resource Directory, which serves as an interlibrary loan tool to promote resource sharing among WLN Participants. Production of the Resource Directory has made it possible for many branch libraries to have a catalog of their library system's holdings for the first time. The Resource Directory is published on microfiche in quarterly cumulations. A New Titles list is produced and cumulated every two weeks for each individual library's accessions. It serves as an update between issues of the Resource Directory. Local catalogs have also been produced for subsets of the Directory, e.g. the holdings of a single library. Any or all of these catalogs can be produced on microfiche, microfilm, or paper.

f. Special Bibliographies

WLN will produce special, printed bibliographies from all Bibliographic and Authority file searches. The records can be printed in several display formats. A Participant specifies the display and the sequence of the bibliography. The display format can range from a very brief entry to a catalog card style display. The entries in the bibliography can be sorted by main entry or by title. These bibliographies are printed

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OCLC

h. Magnetic tapes

OCLC participants may receive a record of their cataloging records on magnetic tape in addition to, or instead of, catalog cards. The OCLC-MARC Tape Subscription Service is available on a weekly, bi-weekly, monthly, quarterly, or semi-annual basis, and may contain the records of a single institution or the combined records of several institutions.

The tapes are 9 track, 1600 characters per inch (c.p.i.), with an 800 c.p.i. option available, with unblocked variable length records and standard ANSI tape labels. They are written in ASCII code (specified by LC as standard code for MARC) but can be converted to EBCDIC, the IBM encoding standard.

The data appearing on the tape are those which appeared in the record on the screen at the time of production or update of holdings, with the exception of other institution holding symbols. All library modifications, such as preferred forms of entry or local subject headings, will appear on the tape. Data which print on catalog cards due to the library's profile, such as location symbols or automatic oversize designations, do not appear on the tapes.

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RLIN

h. Magnetic Tapes

Subscribers may receive tapes in MARC II communications format of their cataloging records. These tapes are provided on a bi-weekly or monthly basis and constitute the cataloging activity during the given time period. (Entire individual Catalog Data Files on tape are not yet available as a standard option and must be separately negotiated.) Users may subscribe to both cards and tapes on the same or variant time cycles.

The tapes are nine track, 1600 bits per inch, in ASCII code. RLIN mnemonic tags are converted to MARC numeric tags. All tags, indicators, and delimiters input by the subscriber appear on the tape.

Local elements appear in the 900 tags of the MARC format. (Typical 900 field elements are local data elements, price information, branch names, copy numbers, variant imprint statements for given items, source and status of the bibliographic description.) Nineteen local elements are available in the 900 tags on the tapes.

Each RLIN user is free to use his tapes without restriction. Several subscribers use the tapes to produce book or microform catalogs. These catalogs are produced by government data processing departments and commercial vendors. If local data processing facilities are available, programs can be written to produce a number of special outputs. Examples include: selective dissemination of information lists, vendor lists, accounting reports, statistical summaries, and accessions lists.

WLN

centrally at the WLN Computer Center and are mailed each day. Bibliographies can also be printed locally using a printer attached to the terminal.

g. Accessions Lists

WLN's New Titles listing, the supplement to the Resource Directory COM catalog, can serve as an accession list. The bi-weekly listing includes all titles added to a library's holdings since the last quarterly cumulation of the Resource Directory, and is merged into the Resource Directory at the end of the quarter. The listing can be produced on microfiche, microfilm, or paper.

h. Magnetic Tapes

WLN will supply, upon request, a magnetic tape containing all records which a Participant has input and/or to which it has attached holdings information. This tape will be in the MARC communications format. Requests from a Participant for a tape must be received by WLN on or before December 1 for production of a tape in January, and on or before June 1 for production of a tape in July.

The cost of the service will depend upon whether library-dependent data are included on the tapes. Participants may use the magnetic tape copies of their records at their own discretion.

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B. Acquisitions

OCLC does not presently offer an Acquisitions subsystem. It has developed such a system under a grant from the Council on Library Resources and is testing portions of it internally.

The On-line Union Catalog is heavily used by libraries as part of their pre-order searching activity. Some institutions note the OCLC number on order records for later use in cataloging. Others base marginal selection decisions on holdings of other institutions. A few institutions use local printers to produce printed orders from records already in the file.

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B. Acquisitions

At the present time only Stanford University uses the RLIN acquisitions system. In the near future, several additional libraries are expected to join in its use. The acquisitions system allows online order, receipt, claiming, and distribution of library material.

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B. Acquisitions

1. Process

The WLN Acquisitions and Bibliographic subsystems are fully integrated, with appropriate links maintained between files. All in-process and standing orders records can include all pertinent bibliographic data. Bibliographic data are transferred automatically to a record in the In-process file if it is linked to a record in the Bibliographic file. Bibliographic data can also be added to an in-process record and updated on-line. The added information is immediately accessible. The in-process and standing orders records also contain order, encumbering, claiming, receiving, and payment information.

The order cycle begins with an on-line search of the Bibliographic file to determine if a full or interim bibliographic record exists. A terminal operator can then access the Holdings file to see if the library has the title on order. If the item is not in the data base, an interim record to which the in-process record can be linked is created in the Bibliographic file.

The order cycle is continued by entering a purchase order number immediately after finding or creating a bibliographic record in the data base. This action creates the order record in the In-process file and causes a formatted order screen to be displayed. In addition to bibliographic data, the order screen contains designated data elements from the order and accounting profiles. Additional order and accounting data are then added to the screen display by the terminal operator to form the initial record in the In-process file. Input screens are available to

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accommodate: regular orders, form approval, book approval, and standing orders. The system will handle the following types of orders: regular, standing orders, quote, desiderata, solicit, special, old standing order, information request, selection list item, and order only-no accounting. An order record can be deleted providing no related accounting information exists.

Once the order is in the In-process file, data elements can be added or updated on-line. Bibliographic information can be added to or updated in the In-process file without affecting the Bibliographic file. General order data, such as quantity, order type, source of order, list price, reserves, rush order, etc., can be added, deleted or altered within a given acquisitions record. Vendor data, standing orders, and location data may also be updated on-line.

The Acquisitions subsystem automatically identifies overdue orders and initiates claims. An order can be cancelled by manual intervention.

Invoice data can be entered and the order marked "received" by using one of three screen formats or by fields. Automatic claiming and the claim interval for the initial receipt are set by the order profile. Claim letters are printed automatically. On-line commands provide for overrides and for input of additional information to appear on the claims. Vendor reports can be attached to the record. With automatic claiming and monitoring of vendor responses, vendor performance can be evaluated.

With payment the order cycle is complete. Payment can be recorded using a formatted or unformatted screen. A partial payment is recorded by field (unformatted screen). Accounting

data are kept in an Accounting module that supports the basic accounting functions for encumbrances, liquidations, and payments. Invoice data and receiving information related to a payment are also kept in the Accounting module.

The following categories are available in the Acquisitions subsystem to record the method of acquisition: purchase, gift, exchange, membership, depository, special purchase, blanket, coupon, order plan, credit, PL 480, revolving account.

2. Products

a. Forms

System products reflect the status of the In-Process file and the Standing Orders file. These products are produced by request and printed by the batch programs. Both the In-Process and Standing Orders files are scanned to produce system products, including Purchase Order Index, Title Index, Copy to History Report, Exceptional Conditions Report, accounting reports, and standing orders reports.

A Purchase Order Index can be produced regularly according to schedule. Cumulative supplements can be produced regularly or by request as of any specified date. The Purchase Order Index is sorted by purchase order number.

The Title Index is the list of titles in the In-Process file (except desiderata, old standing orders and selection list). It serves as a quick reference for items by title. It is currently being used by Participants in public service areas without terminals. Up to nine cross references for each entry can appear in the title printout. The Title Index is sorted by title (the first 50 characters of title or cross reference.)

The Order History file contains a complete record of all information related to each order that has been processed. In-Process records are copied periodically to magnetic tape. When the History file is printed (on an irregular basis), it is sorted by purchase order number.

The In-Process file can be scanned upon request for exceptional conditions. The system will generate a separate report for each of the following conditions requested: 1) on hold status; 2) received over 30 days but not invoiced; 3) cancellation not confirmed; 4) on order over one year, but not received; 5) prepaid over 30 days, but not received; 6) received, invoiced, and paid 10 months ago, but not cataloged.

Standardized accounting reports can be produced in cumulative monthly and end of year/beginning of year reports. Each library determines its own frequency. Accounting reports are 1) accounting fund balance reports, 2) accounting fund transaction processing reports, 3) accounting fund transactions year end summary, and 4) list of outstanding encumbrances.

The Standing Orders lists that can be produced are 1) standing orders mailroom distribution list, 2) standing orders reorder report, and 3) standing orders overdue renewal invoice report. All three reports are produced at the request of the library. The mailroom distribution list assists mailroom personnel in the routing of incoming standing orders (usually periodicals). It is sorted by library location, then by main entry within each library, then by primary and secondary locations. The standing orders reorder list is used to indicate when items should be copied to the In-Process file for re-ordering. The report is sorted by vendor and title for each library.

WLN

The standing orders overdue renewal invoice report is used to detect items that should be renewed by a vendor, but for which no renewal invoice has yet been received (assuming the record is copied to the In-Process file for payment).

In the Acquisitions subsystem the following information is readily available:

- monthly and year-to-date encumbrances by fund
- monthly and year-to-date expenditures by fund
- free balance for each fund
- orders placed with each vendor
- average response time of each vendor (no. of days until received)
- average number of claim letters per order for each vendor

Through the use of the MARK IV report writer interface to the In-Process and Standing Orders files of the Acquisitions subsystem, on-demand reports can be generated. For instance:

- standing orders (subscriptions) by branch location/ department
- estimated annual expenditures for serials by fund number

WLN intends to develop other management information reports as deemed necessary by the Participants.

b. Magnetic Tapes

After In-Process file acquisitions records, including standing orders renewals, have been completely processed, they are cleared from the In- Process file and copied to a magnetic tape history file. These tapes are available to Participants for producing statistical reports and to ensure a complete audit trail.

OCLC

C. Serials Control

The Serials Control subsystem is designed in three components: check-in, claiming, and binding.

The check-in component provides the library with an on-line file of its detailed serial holdings information. The automatic check-in feature provides an automatic update of holdings statements and a prediction of the next expected issue and arrival date.

When operational, the claiming component will identify unreceived issues and produce claims notices. The binding component will identify completed binding units and produce binding notices.

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C. Serials Control

1. Process

a. Serials Check-In

RLIN does not currently offer a separate serials check-in service.

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C. Serials Control

WLN provides ordering and subscription record maintenance for serials, including fund accounting, through its Acquisitions subsystem. WLN now provides for summary holdings updates in the Bibliographic subsystem. It does not currently provide check-in or binding control. The latter capabilities are in development.

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V. APPLICATIONS OF THE SYSTEM TO OTHER LIBRARY FUNCTIONS

The OCLC system can be used in a variety of other library functions, particularly those requiring bibliographic verification or searching.

A. Circulation

OCLC does not presently provide on-line circulation services, although such a system is being developed. A number of OCLC participants do use their OCLC-MARC subscription tapes to extract data for use in other circulation systems. An interface program is available from the New York University Library for the CLSI system. Other institutions have written programs for in-house systems. OCLC does not provide such interfaces.

B. Reference

Reference staff in many institutions use OCLC for citation verification. In some institutions, faculty and graduate students use the system for the same function. Present lack of subject access is a disadvantage.

OCLC does have an experimental information retrieval package with subject access which has been used by a limited group for a subset of the data base. Response was favorable, but the heavy use of system resources precluded expanded use. At least two institutions have developed in-house systems for providing subject access on-line to their own records as supplied by the OCLC-MARC Subscription Tapes.

The major feature used heavily by reference staff is the author search. It is used for general reference work as well as the compilation of special bibliographies. It is also used by patrons.

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V. APPLICATION OF THE SYSTEM TO OTHER LIBRARY FUNCTIONS

A. Circulation

Not presently available.

B. Reference

RLIN is often used for reference work because of its power- ful search logic and its many index points. The ability to search the subject tracings is particularly attractive for reference work.

WLN

V. APPLICATIONS OF THE SYSTEM TO OTHER LIBRARY FUNCTIONS

A. Circulation

WLN provides full circulation control capabilities to libraries within the state of Washington. This subsystem is currently being linked to the Bibliographic subsystem. Such linkage will be provided to Principal Members of WLN outside of Washington if they independently acquire the circulation software from DataPhase Systems, Inc., of Kansas City.

The WLN Circulation subsystem runs on Data General minicomputers, each of which can serve several libraries. The on-line circulation file can be searched by author, title, and number, including call number.

The subsystem provides for reserves, recalls, overdues, A-V booking, charging to secondary locations, and collection inventory.

B. Reference

WLN's Inquiry module is specifically designed to support reference services. A variety of access points to the data base are available including record identifier (WLN ID number and LC card number), ISBN, ISSN, title keyword, author, corporate author keyword, subject, corporate subject keyword, series, and corporate series keyword. Search keys may be combined with Boolean logic to further refine the search.

The keyword searches allow the user to access even vague or imprecise titles and complex corporate headings with relative ease. The ability to specify type of author, subject or series (e.g. personal author, geographic subject, title series) allows the user to eliminate extraneous headings from the search. WLN's on-line Authority file allows the user to determine the exact form of author, subject, or

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Special bibliographies, usually related to the works of a particular author, have been prepared on the system. SAVE File storage and local printers have generally been used for this purpose.

C. Interlibrary Loan

The OCLC system is used heavily for interlibrary loan verification. Some institutions have installed separate terminals for this function. The over 40,000,000 locations provide a rich and valuable resource. The Library of Congress makes use of this function. OCLC is testing the Interlibrary Loan subsystem scheduled for introduction in April 1979.

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RLIN

C. Interlibrary Loan

The use of RLIN for validation of interlibrary loan requests is enhanced by the ability of the searcher to locate books without precise knowledge of author and title and by the ability of the system to display library-specific call numbers. Further, the search can segment the data base in such a way as to display only those records that are held by a specified library or group of libraries.

WLN

series headings before bibliographic records are searched.

If a large number of records is retrieved by a search the user can view brief versions of the records, 20 at a time, or view each record individually in one of several formats. The records can be sorted by main entry or title. Holdings information for titles retrieved can also be displayed.

C. Interlibrary Loan

WLN's on-line Holdings file is designed to facilitate interlibrary loan. Brief bibliographic information is provided in the Holdings file for each item owned by one or more Participants. Local call numbers and holdings symbols are attached to each record. A maximum of 10 holdings records can be displayed at once.

The on-line Holdings file is supplemented by the WLN Resource Directory, a COM catalog reproduction of the entire Holdings file. Many Participants use the Resource Directory as the primary searching tool in their branch libraries. Author, title, and subject entries in the Resource Directory include more bibliographic information (e.g. imprint and collation) than the on-line Holdings file, since the additional bibliographic data are available on-line in other linked files. The Resource Directory register contains full bibliographic information for each record.

Washington Participants in WLN sign a "Memorandum of Agreement" committing them to participate in interlibrary loan, thus ensuring the availability of most held items. This type of participation is optional for out-of-state Participants.

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D. Management Information

OCLC provides a number of tools to aid the manager in accessing system use. Monthly statistics of input are provided. The error performance data are also useful. Most networks issue some form of comparative data for their members.

OCLC has a very extensive interactive Management Information sub-system under development, to increase the utility of information such as that described above.

Some institutions/networks have used the OCLC-MARC Subscription tapes to analyze their accessions and holdings both in relation to subject areas and to collections.

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D. Management Information

Not presently available.

WLN

D. Management Information

WLN provides regular system use statistics to its Participants. It also provides accounting reports for acquisitions, including reports that are customized for the particular participating library. WLN can supply a profile of terminal use characteristics for individual libraries.

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OCLC

VI. FINANCIAL AND ADMINISTRATIVE CONSIDERATIONS

A. Announced Charges*

OCLC's pricing structure was developed to enable libraries to budget easily for OCLC processes and products. It is easily related to an institution's processing rates, since it is based on the use of records already in the On-line Union Catalog. There is no charge for original input. An institution can easily calculate its costs, based on the number of titles cataloged per year and the percentage of original cataloging performed. The first time use (FTU) of existing records varies from institution to institution, but averaged over all users, is roughly 92%. Confusion does arise, however, between OCLC charges and charges which may be added by networks to cover their operating costs. Indeed, OCLC only bills directly those institutions which do not belong to a network. Networks bill their own members. Except for independent institutions, OCLC bills to and is paid by networks.

RLIN

VI. FINANCIAL AND ADMINISTRATIVE CONSIDERATIONS

A. Announced Charges*

1. Shared Cataloging Service	
Copied records	$ 1.65
Upgraded or nonstandard records	$ 1.25
Original standard records	$ 0.00
2. Searching service per connect hour	$ 24.00
3. Library school instructional use per connect hour	$ 12.00
4. Catalog card production per card	$ .04
5. Worksheets (per worksheet)	$ .25
6. Magnetic tapes	
Under 500 records (per tape)	$ 34.00
Over 500 records (per record)	.04
7. Standing searches (per search/mo.)	.25
8. Start-up fees	
Shared cataloging in full face per campus or profile	$ 900.00
Shared cataloging in line-by-line / campus or profile	$ 700.00
Searching	$ 75.00
9. Communications (leased line)**	
First terminal per month	$ 200.00
Each additional terminal per month	$ 125.00
Leased line installation within California	$ 250.00
10. Zentec terminal	$4200.00
11. Terminal maintenance per mo.	$ 55.00

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*A 6 percent annual prepayment discount is applicable to cataloging and all delivered services (catalog cards, worksheets, tapes of machine-readable records, and standing search notices).

**Rate for service within California. Other rates will be set by RLIN March 1979.

WLN

VI. FINANCIAL AND ADMINISTRATIVE CONSIDERATIONS

A. Announced Charges*

Nonrecurring Charges

1. Terminal Purchase (for leased line access)	
a. Bibliographic (Input/Edit) Hazeltine	$3,350
b. Inquiry - Hazeltine (optional)	$2,550
c. Interface to attach printer to Hazeltine	$ 100
d. Printer attachment - GE Terminet 120 (optional)	$3,200
2. Modem Purchase (for leased line access)	
a. Leased line unit - Penril	$2,350
b. MCU (to allow use of multiple terminals per modem) - Penril	$ 400/ea
3. Equipment Installation	
a. Terminal	$ 100/ea
b. Modem	$ 100/ea
c. Modem Contention Unit (MCU - exempt if installed at same time as modem)	$ 100/ea
d. For installation of equipment outside the State of Washington, add shipping, transportation and per diem for WLN staff.	

Recurring Charges

1. Telecommunications - leased line (per terminal) within Washington	$ 40/mo
2. Equipment maintenance	
a. Terminal - Hazeltine	$ 35/mo
b. Printer (GE)	$ 35/mo
c. Penril modem	$ 10/mo
d. Penril MCU	$ 2.50/mo
3. System use: Per terminal	
a. (Range, with 5 steps according to extent of use - $1,000-3000)	$2,000/yr av

OCLC

OCLC CHARGES - EFFECTIVE 1978
JULY 1 FOR FISCAL YEAR 1978/79

1. First-Time Use: (does not include telecommunication, terminal lease and service)** per use	$ 1.20
2. Reclassification Project per use	$ .60
3. Serial Check-in per issue checked in	$ .034
4. Public Search Terminal per search	$ .022
maximum charge per terminal per year	$2280.00
5. Catalog Card Production per card	$ .036
6. OCLC 100 Display Terminal:	
Purchase	$3700.00 ea
Modem Installation	$ 148.00 ea
7. OCLC 100 Display Terminal Maintenance per Separate Agreement	$ 33 / month
8. Start-Up Instruction Training & Follow-Up Support Services	$ 19/ hour
9. Instruction Manuals:	
On-line Systems: Catalog Users Manual (includes 2-year updating service)	$ 15 ea
Design of Formats & Packs of Catalog Cards, per manual	$ 4.00
OCLC-MARC Subscription Service Documentation, per manual	$ 7.50
10. Processing of Catalog Profile Pack Definition Table:	
Initial Start-Up:	
Standard Catalog Profile & Catalog Card Format	$ 29/profile
Non-Standard Catalog Profile & Catalog Card Format (No Charge for Corrections within 30 Days After Initial Start-Up)	$ 29/ hour (average total $300)
Changes to Catalog Profile and/or Pack Definition Table	$ 29/ hour

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Per terminal, irrespective of type of use	$3,000/yr max
4. System use: Surcharge for leased-line terminal used primarily for Inquiry	$1,000/yr av
(50% of basic terminal charge no. 4 above, to be added to that charge)	$1,500/yr max
5. System use: Bibliographic subsystem	
a. Per request for catalog products, except as noted below.	$ 1.85/title
b. Per request for catalog products from record input by requesting library.	$ .60/title
6. System use: Acquisitions subsystem	
a. Per title ordered	$ .60/ea
b. Per active fund account (first 6 are exempt)	$ 40/yr
7. System products	
a. Catalog card set (w/o labels)	.35/set
b. Single main entry card	$ .055/ea
c. Labels, row of three	$ .055/set
d. Off-line printed bibliographies	$ 1.00/ea
plus	$ .03/title
e. Acquisitions multi-form order	$ .12/ea
f. Resource directory (fiche) per set of four quarterly issues, with Register	$ 130/yr
g. Above, without Register	$ 125/yr
h. Biweekly title listing (fiche) per set	$ 25/yr
i. Special COM catalogs, for an individual library or group of libraries, produced on a quarterly or less frequent basis.	
1) Per title for up to 200,000 titles	$ .04/ea
for catalogs in excess of 200,000 titles	$ .03/ea
2) Per fiche (title/fiche ratio averages 2000)	$ .15/ea

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11. Off-Line Services:

a. Accessions Listings:		
Fewer than 140 items	$	12 minimum
141 Items or More per item	$	.086
Changes in Selected Items	$	17/ change
b. OCLC-MARC Subscription Service:		
Cost of Tape, Handling & Delivery	$	23/ tape
c. Credit for Returned Tapes	$	6/ tape
Copying Charge per Record:		
1- 1,000 Logical Records	$	.035 /record
1,001- 5,000 Logical Records	$	.012 /record
5,001-50,000 Logical Records	$	.004 /record
50,001 and more Logical Records	$	.001 /record
d. Surcharge for 800 cpi	$	5. /tape

12. Access to OCLC System via Tymnet

Log-On	$	.50 per log-on
Connect Charge	$	12.00 per connect hour

* OCLC offers a 6% discount for annual payment in advance. For fiscal 1978-79, annual prepayment for catalog cards results in a per card cost of 3.4 cents. The reduction for annual prepayment of FTU's at $1.20 per FTU is $1.13. The charges made and prices quoted are subject to change by OCLC at any time. All billings are due 30 days from due date, after which there may be assessed a charge of 1% per month.

** Telecommunications charges average around $160 per terminal per month. These charges are determined by the regional networks, which bill their members directly.

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Minimum charge per COM catalog production run	$	750
j. Magnetic tape service (retrospective or current)		
1. Tape fee	$	20/ea
2. Per title	$	.02/ea
3. Per title with library-dependent headings	$	.15/ea
k. Special products at cost		
l. Input holdings from existing non-WLN machine-readable bibliographic data base		
1) Generate search key	$	.01/record
2) Search WLN file and attach holdings	$	.025/record
m. Staff time to develop and implement specific product requirements	$	15/hour
n. WLN application software Resource Directory (COM catalog) programs (terms to be specified)		$10,000

There is a 7 1/2% surcharge for out-of-state use of the system (this may be reduced).

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B. Contract Obligations

OCLC participants are required to enter all current Roman alphabet cataloging in the data base and to adhere to OCLC standards for input cataloging.

C. Arrangements with Regional Networks (Brokers)

There is often confusion about the relationship between OCLC and contracting networks. OCLC is responsible for providing access to the On-line Union Catalog and for providing processes and products to the participating institutions. Networks contract for these with OCLC on behalf of their members. They bill their members, provide advisory and training services, and communicate member interests to OCLC. Network users have a direct channel to OCLC management through the Users Council.

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RLIN

B. Contract Obligations

RLIN users are required to sign the RLIN Standard Agreement. This agreement insures that users will pay for the services rendered and defines the responsibilities of RLIN. Prospective users should request a copy of this contract from RLIN. Users who wish to qualify for refunds for cataloging to RLIN Standards must also sign "The Agreement to Catalog According to RLIN Standards".

C. Arrangements with Regional Networks (Brokers)

Within California, subscribing libraries deal with CLASS. Outside California, users may utilize the services of library networks which have contracted with RLIN. Such services are currently offered by the Bibliographical Center for Research in Denver. Other library network arrangements are still in negotiation, but will be announced when completed. Users not in service areas covered by an RLIN library network agreement may contact RLIN directly.

WLN

B. Contract Obligations

WLN Participants are required to input all appropriate current cataloging into the Bibliographic data base. Input cataloging must conform to LC practice or AACR and ISBD, and must utilize authorized subject headings. These can be LC, LC Children's, MeSH, NAL, or National Library of Canada headings. WLN further requires that all cataloging contain full MARC content designation. All libraries within an authority group, or WLN "Collection" must adhere to the authorized headings for that group.

Uss of the Bibliographic subsystem is a prerequisite for use of any other WLN subsystem.

C. Arrangements with Regional Networks (Brokers)

WLN will not offer a permanent, national bibliographic service from its current facilities. Service to a library outside the Pacific Northwest will be provided only with the understanding that the library or some agency in that region will replicate the WLN computer system within a reasonable period of time, usually not to exceed four years.

The WLN system operates on standard IBM or IBM-compatible hardware with standard, commercial software. It is a system which can be easily replicated.

WLN will not normally arrange to have its services brokered by a regional network.

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OCLC

VII. ADMINISTRATION

A. Governance

OCLC is a not-for-profit corporation chartered by the State of Ohio. A Board of fifteen Trustees governs OCLC. The Board elects five persons with special competence and three librarians as Trustees; the President and Executive Director of OCLC is a Trustee by virtue of his position. There is also a Users Council consisting of delegates elected by organizations with which OCLC has contractual agreements; the Users Council elects six of its members to the Board of Trustees. Each participating network elects a proportion of the Users Council members. Thus individual users, through their participating network, may either serve on the Users Council or elect its membership, providing them an opportunity to participate in OCLC policy development and formulation.

RLIN

VII. ADMINISTRATION

A. Governance

The Research Libraries Group, Inc., will be the corporate body through which member institutions will direct and manage the Research Libraries Information Network. Membership in RLG will be based on one principal criterion: an institution that meets the criteria for membership in the Association of Research Libraries is eligible for membership in RLG. RLG member institutions will elect a sixteen-member Board of Directors at an annual meeting. The chairman of the board will be drawn from its membership and act as a leader in RLG's activities. RLG's president and chief operating officer will also be a member of the Board. We believe that RLG's operating activities must be institutionally based, thereby ensuring peer review by financial, program, and technical officers. RLG has therefore altered its prior practice of being an independent executive agency to one of integrating its executive functions fully with the operating functions of one of its members. Thus, RLG has entered into a "host institution" agreement with one of its members; this member is operating the Research Libraries Information Network. RLG chose Stanford as its host institution because RLIN is based on software and organization developed at Stanford. Under the agreement, the president of Stanford appoints the executive director of RLIN, with the advice and consent of RLG's Board of Directors. RLG has concluded that during the early developmental years its best interests will be served by having its presidency and the RLIN executive directorship held by the same individual. This integration of offices is intended to reflect a relationship between RLG and Stanford analogous to a corporate board and its line officers. RLG's current members--Columbia, the New York

WLN

VII. ADMINISTRATION

A. Governance

WLN is an agency of the State of Washington. Formal responsibility for WLN lies with the Washington State Library Commission. The Commission determines major policies, upon the advice of the WLN Executive Council (see below). Participant fee schedules must also be approved by the State Data Processing Authority (DPA) as well as by the Commission.

Participation in governance by the membership begins at the Library Service Area level for Washington libraries. The state is divided into seven areas which participate at the local level in planning for cooperative use and implementation of WLN. Each area elects six delegates-at-large to the WLN Representative Assembly. Each on-line Participant sends an additional delegate to the Assembly. The Assembly participates in planning WLN programs, activities and services, and provides a means for the communication, direction, and evaluation of WLN. Provision is being made for out-of-state members to participate at this level of governance.

The Representative Assembly elects an 11-member Executive Council which meets to develop policy recommendations, review and evaluate WLN services, appoint committee and task force members, and otherwise provide leadership and coordination for WLN activities. The Council is composed of representatives from all types of member libraries, whether they are Principal or Basic members. (Basic members are those who participate only in the interlibrary loan, reference/referral, or telecommunications components of WLN.) Council members must, however, be members of the Representative Assembly. The Executive Officer of WLN and the Director of the Data Processing Authority are ex-officio members.

OCLC

B. Staff

OCLC has a staff of 360. It is further assisted by its service contractor, who provides on-site services when and where needed, and by participating networks which provide support services to their members on a state-wide or regional basis.

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Public Library, Stanford, and Yale--have committed significant resources in time and money in support of this activity. To reflect this commitment and to ensure a reasonable degree of program stability, RLG bylaws will provide that these four institutions hold eight seats on the Board of Directors until August 31, 1982, at which time RLG's income is expected to exceed its expense. At that point, the four institutions will hold four seats on the board until August 31, 1986, when all loans made for RLG activities will have been repaid. Thereafter, all sixteen seats will be open for annual election. Although the foregoing legal governance structure is important, the more important structure as far as RLG development and operations are concerned will be determined at the RLG presidential level. Councils and committees appointed by the president will influence directly RLG programs. All RLG members will be involved at this level in such activities as collection development, interlibrary loan programs, preservation programs, and bibliographic control, to mention but a few activities. RLG expects that a number of these programs will be organized on a regional basis to take advantage of geographical proximity.

B. Staff

RLIN presently employs a staff of 51. It is supported by the technical staff of the Stanford Center for Information Processing and by the participating networks.

WLN

B. Staff

The WLN staff now consists of the Associate Director for Network, Manager of Computer Services, Systems Design Coordinator, Telecommunications Manager, Operations Manager, three programmers (two programmer positions are open to be filled in late 1978), Teleprocessing Specialist, Library Services Coordinator, two Network Services Librarians, and clerical support. The Washington State University Computing Center provides systems programming and computer operations support under contract. The Washington State Library provides Bibliographic Maintenance services, training and other administrative services as needed.

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OCLC

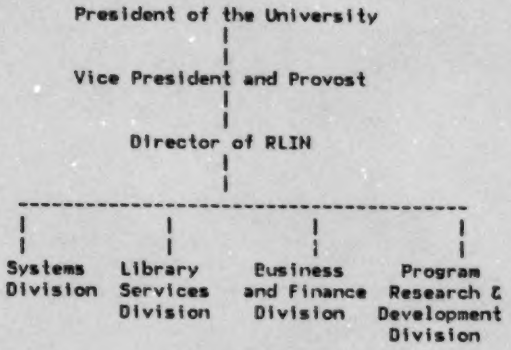
C. Administration and Organization

OCLC is organized into six divisions: Administration, Finance, Computer Facilities, Library Systems, Research and Development, and User Services. The Office of the Executive Director includes a planning office.

RLIN

C. Administration and Organization

Within the administrative structure of Stanford University, RLIN is an independent program, receiving University support and direction and reporting to the President through the Office of the Provost. The organizational design of RLIN comprises four divisions reporting to the Director, as illustrated below:



The Systems Division contains three units--Development, Communications, and Applications--which design, implement, and manage the RLIN system. The three units of the Library Services Division--User Services, Library Systems Analysis, and New Account Coordination--work directly with system users, coordinating RLIN services with the needs of the libraries. The Business and Finance Division oversees all financial activity and provides long-range program forecasting. The Program Research and Development Division is not yet staffed, but will provide analysis of requirements of libraries in the future, supported by pure and applied research.

These four divisions, integrated by the Director, provide the structure for the RLIN program to meet the needs of research libraries nationally and of all libraries in California.

WLN

C. Administration and Organization

WLN is administered by the Washington State Library. The Computer Services Division is responsible for software development and maintenance and for computer production services. The Library Services Division handles training, documentation, and on-going liaison with WLN Participants. The Technical Services Division is responsible for a portion of the training and for data base quality control and maintenance, including Authority file maintenance. The Consultant Services Division is responsible for providing non-computer system network support to members within Washington. Administrative Services provides management and financial services.

OCLC

D. Regional Offices

In addition to the central office, OCLC has established a Western Service Center in Claremont, California. Staff from this office provide services to libraries in the West much as the central office provides services to independent users.

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RLIN

D. Regional Offices

None.

WLN

D. Regional Offices

WLN does not maintain regional offices. The Library Services Division and the Bibliographic Maintenance section are housed at the Washington State Library in Olympia, WA. Computer Services staff are housed at Washington State University in Pullman, WA.

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OCLC

VIII. CHRONOLOGY OF SYSTEM EVENTS

1967 OCLC incorporated.

1969 OCLC begins simulation study of computerized regional network. Work begins on off-line card production system.

1970 Off-line card system operational. Sigma 5 computer installed.

1971 On-line cataloging system operational.

1972 OCLC control number index added.

1973 Membership extended to Ohio non-academic libraries. Services extended to libraries outside Ohio.

1974 Serials format available. Accessions List Service available. Additional search keys - personal name, ISBN, ISSN, CODEN. New command for easier input of original cataloging. Dial-up access available. Hours extended to 7am-8pm EST (4am-5pm Pacific Time). Medical libraries given the capability to add NLM call number and MeSH headings to existing records. Libraries have the capability to correct their own input on-line if not used by another library.

RLIN

VIII. CHRONOLOGY OF SYSTEM EVENTS

1967 First BALLOTS Grant SPIRES Grant (sister project which developed information storage and retrieval software adopted by BALLOTS)

1969 BALLOTS I (prototype)

1972 Grant for BALLOTS II (production system) - to be developed and implemented as a series of modules for Stanford University Libraries

MARC File Module (MRC)

BALLOTS available off-campus through direct dial - for searching only

1973 In Process File Module (IPF)

Catalog Data File Module (CDF)

Purchase Order (for records not in the MRC file) and Original Cataloging Module

1974 Automatic Claiming and Canceling Module

Non-Purchase-Order Material Receipt Module

Standing Order Processing (including serials acquisition and cataloging) Module

Out-of-Print Material Procurement Module

Meyer Inventory File Module (conversion of undergraduate library holdings to CDF records)

Reserve Catalog Processing Module

1975 Meyer Book Catalog Module

PLAN Network (extension of searching and cataloging services to seven California public libraries)

Grant for BALLOTS Network Development

WLN

VIII. CHRONOLOGY OF SYSTEM EVENTS

1966-1968 Washington State Library participation in Library of Congress MARC I pilot project, producing a union catalog of three libraries.

1972 WLN Resource Directory union catalog project implemented for 8 regional public libraries, one state college library and the state library. (Beginning level of total system development by WSL and Boeing Computer Services.)

1975 "Early on-line" system developed as a result of continuing effort of Washington State Library and Boeing Computer Services.

1976 Washington Library Network - legally recognized as a Washington State agency responsible to the State Library Commission. WLN Revolving Fund established by the state legislature.

1977 Bibliographic subsystem including Authority Control completely finished, tested, and put in production.

1978 Acquisitions subsystem with fund account implemented in Participant libraries. WLN Computer Services made available to libraries outside the state of Washington.

OCLC

1975 Sigma 9 installed. Book and spine labels available. Off-line card production ends. Minnesota Union List of Serials added to the data base. Records display full MARC fixed field. Second Sigma 9 installed. Saturday hours added (8am-5pm EST).

1976 All Produce function added allowing cards for multiple copies at one time. Saturday hours extended (to 8pm EST). Tape options expanded. Author/title, title, and author search keys provide extended retrieval capabilities (both main & added entries). Audiovisual, maps, manuscripts, sound recordings, music scores formats available. Third Sigma 9 Serials check-in begins testing in 125 libraries.

1977 Fourth Sigma 9 installed. Extended search display improved. Multi-level indexing (MLI). Serial cards.

1978 Data Base Processor.

1979 ILL Subsystem introduced.

RLIN

BALLOTS available off-campus through TYMNET

Cataloging in line-by-line mode available off- campus either through direct dial or TYMNET

1976 Conversion to new generation of IBM equipment (IBM 370/168)

Full MARC Cataloging - ISBD

Punctuation Module

Multilibrary Shared Cataloging Module (retention online of cataloging by users besides SUL)

Zentec 9003 terminals available

1977 Processing-in-Receipt implemented

Cataloging service extended to Saturday

Extended Character Set Module

1978 Governance structure modification

BALLOTS changed name to RLIN; hours extended.

OCLC

IX. ANNOUNCED FUTURE DEVELOPMENTS

- Interlibrary Loan - 1979
- Acquisitions - 1980
- Serials Control - Claiming and Binding
- Authority Control
- Monographic Local Holdings
- Subject Retrieval
- Circulation Control

The OCLC system will consist of seven subsystems: (1) On-line Union Catalog and shared cataloging; (2) Serials Control; (3) Interlibrary Loan; (4) Acquisitions; (5) Circulation Control; (6) Public Services; and (7) Management Services.

Plans for the future are many and varied. Much remains to be done to achieve the system's basic design and to fulfill OCLC's long-range goals. The present six-year plan anticipates and is directed toward the completion of the system as originally conceived, including Acquisitions, Interlibrary Loan, Authority Files, Circulation, and Public Access. Work remains to be done on the Cataloging and Serials Subsystems. In addition, changes in the library world, such as AACR II, and anticipated closing of card catalogs must also be considered.

January, 1979, testing for the Interlibrary Loan Subsystem began and installation is scheduled for early April 1979. Programming is well underway for the Acquisitions subsystem and OCLC is testing some elements of it internally.

Work is also underway on the development of a terminal to handle non-Roman alphabets including Cyrillic, Arabic, Hebrew, and Greek.

RLIN

IX. ANNOUNCED FUTURE DEVELOPMENTS

SYNCHRONOUS COMMUNICATIONS NETWORK - 1st Quarter 1979

The new communications system will improve the stability and economy of service through optimal message transmission, redundant hardware, and remote problem diagnosis.

AUTHORITIES

Searching Access - 1st Quarter 1979

All available LC name and subject authorities records will be available for searching in a single file. All references will be reciprocal and the data will be indexed on both full headings and by word for corporate and conference names, titles, topical subjects, and geographic names.

Bibliographic Control - 1st Quarter 1980

This feature will provide mechanized validation of bibliographic data against an authority file and will permit (1) changes throughout bibliographic data to conform to modifications of authorized forms, (2) maintenance of authority data from other sources, and (3) automatic or semiautomatic redirection and expansion of searches from SEE and SEE ALSO references.

NETWORK SERVICE ENHANCEMENTS

Non-book Formats - 2nd Quarter 1979

A separate data base is being designed for each of the U. S. MARC non-book formats for searching, cataloging, and producing catalog cards. These formats include films, manuscripts, maps, serials, sound recordings, and scores.

WLN

IX. ANNOUNCED FUTURE DEVELOPMENTS

The WLN development efforts are of two basic types: enhancement of the existing subsystems by improving efficiency and adding new capabilities, and the development of new subsystems. Among the first category are the following:

- further refinement of searches, by institution, material type, etc.
- additional product options
- batch retrospective conversion
- extended automatic checking of authorities
- interface with other bibliographic computer systems
- book ordering via magnetic tape
- improved telecommunications processing

In the second category, two major subsystems are currently under development: Detailed Holdings and Serials Control. Detailed Holdings will support data collection and maintenance for the circulation and serials control subsystems, as well as provide for an on-line shelflist, public library "location" files, and the production of COM catalogs showing branch and copy locations. The Detailed Holdings data collection and maintenance capability were available in December 1978. The full subsystem will be implemented by December 1979.

Serials Control, including check-in, claiming, and binding functions, will follow detailed holdings. It is planned for partial implementation during 1980. The check-in and claiming specifications have been developed.

Both subsystems will be implemented on WLN Data General minicomputers but certain Detailed Holdings subsystem capabilities will be available on the central computer system.

WLN currently has text editing

At present, the On-line Union Catalog maintains title-specific data, but not copy-specific information. Such data are available off-line in the Archive files. OCLC plans to maintain copy-specific information in Local Data Records. These would contain call numbers, holding unit, and other copy-specific information such as provenance notes. OCLC already maintains local data records, i.e., check in records, for serials.

OCLC plans Authority Files different somewhat from the traditional library view. The Authorities are viewed as an enabling mechanism allowing the user, patron, or library staff to access whatever entry they may think appropriate by a variety of forms. These forms may include the traditional "see" reference as well as initial, abbreviated and misspelling form. They will allow direct access to the data, rather than a referral. The concept of preferred entry will no longer be meaningful, except in those cases when data are exchanged with the Library of Congress or another system.

Libraries will have the prerogative of choosing their own preferred forms. They may enter a form different from the Library of Congress's preferred form and when their records are displayed for their users the local form will be displayed. However, when other institutions access the same record, their own preferred form will be displayed. The Library of Congress preferred form would be the automatic default value.

OCLC views Authority Files as a means of increasing accessibility of information and as a means of increasing, rather than reducing, the number of access points. The cross-reference structure will be transparent to library patrons, but may be viewed by library staff as needed.

Non-book Data Bases - 2nd Quarter 1979

All available LC MARC data for the bibliographic formats will be loaded into the system for use in cataloging. These data include LC tapes for films, maps, and serials, and records for the formats used in the GPO tapes.

Loading Tapes for New Members - 2nd Quarter 1979

The machine-readable tapes for both book and non-book records of libraries joining RLIN will be loaded into the system for searching and cataloging.

ACQUISITIONS

Phase I - 2nd Quarter 1979

The acquisitions system currently used at Stanford University will be extended to accommodate additional libraries.

The system presently supports on-line ordering, receiving, claiming, and distributing for purchase orders, standing or blanket orders, and non-purchase-order materials, as well as supporting search and quote requests for desiderata.

Phase II - 1st Quarter 1980

The existing acquisitions system will be made compatible with the network file system, with appropriate support for each format. Development will begin on the data requirements for management reports and fund accounting.

Phase III - 2nd Quarter 1980

The management reporting and fund accounting portions of the acquisitions subsystem will be implemented and machine-readable output for vendors will become available.

and terminal-to-terminal message-switching capabilities which have not been implemented. These will be made available before the end of 1978.

OCLC

Development work is also underway on subject retrieval and circulation. Subject retrieval for library staff is coupled with Authority File development work. Circulation is presently receiving only limited effort.

The next three years should see the completion of the Cataloging and Serials Control and the implementation of the Interlibrary Loan and Acquisitions Subsystems.

RLIN

NETWORK FILE SYSTEM - 1st Quarter 1980

The Network File System will reorganize the underlying software of the system to permit a file design that reduces data redundancy, improves the structure and functions of indexes, and increases efficiency.

COMPUTING ENVIRONMENT - Continuing Development

It is planned that the RLIN system will be transferred to a restructured computing environment that will ensure adequate stability, computer capacity and availability, and improved response time. This move will also provide operational and financial advantages.

REMOTE COMMUNICATIONS PROCESSOR - 2nd Quarter 1980

In addition to the synchronous communications system being developed, the advantages of supporting remote communications processors, which will communicate to the network center via high-speed satellite or terrestrial links, will be evaluated.

AACR 2 SUPPORT - By 1981

This project will analyze and implement on-line system changes required to support the new cataloging rules. To facilitate updating headings in the on-line cataloging system, an analysis of the heading and rule changes on LC MARC tapes will be carried out.

PAGE-FORM CATALOGS - 2nd Quarter 1980

The output facilities of the system, currently limited to catalog cards and worksheets, will be broadened and generalized to permit production of page-form (for book and COM) catalogs, plus catalog supplements. Initially, output will be profiled to the specifications of

users, but eventually users will be able to specify the appearance of some reports on-line.

NONROMAN ALPHABET SUPPORT - 2nd Quarter 1980

A program will be created to support input and storage of nonroman characters and output in the form of book and microform catalogs. Initially Hebrew and Cyrillic characters will be introduced; then other characters will be analyzed and implemented. The issue of nonroman character support for catalog cards will be examined and implemented if necessary.

PATRON ACCESS - Continuing Development

This project will develop a low cost, synchronous-compatible printer and/or video display terminal for use by reference staff and library patrons. Development will include the design of a simplified user query system to access records in the data base, and a cost-benefit analysis of distributed processing to support circulation, cataloging, and in-process information.

SERIALS CONTROL - 1980 +

A cost-benefit study for both centralized and distributed serials control subsystems will be performed. The most cost-effective system will be implemented to provide item-level check-in and claiming.

INTERLIBRARY LOAN - 1980 +

The most appropriate technology to support interlibrary loan and document delivery systems will be studied.

MANAGEMENT INFORMATION - Continuing Development

A library management information subsystem will be implemented to provide relevant statistical data based on system activity.

RLIN

OTHER PROGRAMS

Data Fields Data Base - 1st Quarter 1979

A data base has been created to house the U. S. MARC bibliographic data fields. To be maintained jointly by RLG and the Library of Congress, this on-line data base describes the fields, indicators, and subfields for all bibliographic MARC formats.

NewMARC - 2nd Quarter 1979

This program will provide a current awareness tool for collection development. Each month a listing of all new MARC records for books, ordered by subject classification number, will be produced in a format suitable for use by collection development officers.

Avery Architecture Index - 3rd Quarter 1979

This data base will be an on-line index to periodical literature of architecture prepared by the Avery Library at Columbia University. A photocomposed index is planned for production in the second quarter of 1980.

Generalized Information Retrieval Data Bases - Continuing Development

The SPIRES programs that provide the extensive search capabilities of the RLIN cataloging system will be extended to provide information retrieval services from a number of important additional data bases.

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BALLOTS Network Reference Manual: Using the System in Full-Face Mode. BALLOTS Center, Stanford University, December 1976.

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WLN

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Data Preparation Manual (Books), 1977, 347 p.

Data Preparation Manual (Serials), 1978, 672 p.

Data Preparation Manual (Projected Media), draft, 1977.

Diacritics and Special Characters, 1976, 31 p.

Error Messages Guide, 1977, 6 p.

Input/Edit Manual, 1977, 165 p.

Inquiry Reference Manual, 1977, 105 p.

Inquiry Self-Instruction Manual (parts 1-2), 1977, 73 p.

Interim Record Manual, 1977, 34 p.

Precataloging Request Manual, 1977, 16 p.

Products Request Manual, 1977, 16 p.

Summary Holdings Maintenance Manual, 1977, 28 p.

Worksheet Preparation Manual (Books), 1977, 29 p.

Worksheet Preparation Manual (Serials), 1978, 49 p.

Acquisitions manuals are in draft form.

All WLN Computer System manuals are available to Participant libraries. They are now published in draft form and will be available on-line in the future. Other manuals distributed to all participants are:

Country of Publication Codes
LC Geographic Area Codes
LC MARC Decisions: Books
LC Revised List of Languages

OCLC

XII. APPENDICES

Following are a sample of display formats, worksheets, catalog cards, spine labels, and accessions lists provided by the OCLC system. More complete descriptions are contained in various user manuals.

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B. Extended Search Display, p. 73

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S. Acquisitions On-line Profiles Displays, p. 91

T. Order Input Screen and Multiple Locations/Encumbrances Input Screen, p. 92

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W. Vendor, Library, and Library Locations Input Screens, p. 95

X. Purchase Order, Processing Slips, and Vendor report Forms, p. 96

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Z. Receiving Report, p. 98

AA. Cumulative Account Status Summary Report, p. 99

APPENDIX A: DISPLAY OF SINGLE BIBLIOGRAPHIC RECORD (BOOK)

```
 Screen 1 of 3
 OCLC: 2331676     Rec stat: c Entrd: 760616     Used: 770502
Type: a Bib lvl: m Govt pub:  Lang:  eng Source:    Illus: a
 Repr:  Enc lvl:  Conf pub: 0 Ctry:  nyu Dat tp: s M/F/B: 11
 Indx:  0 Mod rec:  Festschr: 0 Cont:
 Desc:  i Int lvl:  Dates: 1976,

  1 010      76-13718
  2 040      DLC c DLC d OCL
  3 020      0394499123 : c $10.00
  4 050 0    PZ4.G23117 b Oc a PS3557.A712
  5 051      PS3557.A712 b 025 c Copy 2.
  6 082      813/.5/4
  7 090       b
  8 049      XNLL
  9 100 10   Gardner, John Champlin, d 1933-
 10 245 10   October light / c John Gardner ; illustrated by Elaine Raphael
and Don Bolognese.
 11 250      1st ed.
 12 260 0    New York : b Knopf : distributed by Random House, c 1976.
 13 300      433 p. : b ill. ; c 22 cm

 Screen 2 of 3
OUN KSU OTC WSU TOL BLC DAY OSU MIA ASC KEN NIR ATO ODC WMC WOO XAV
YNG PIT TUS CLC DRB CXP DXU TEU WEL CBY CTL RIU RCM RWB MDY TFW YUS
BBH SAC FAU CPL VTU NHM PSM BOS RRR UCW BUF BNG COO TLH YMM DMM BXM
FEM HCD LAP PGP GEC DLM PHA SHP FPL UAP NAM PEM MMM LIN GRC INT ITD
APL IWU WHE IAU IEA IXA PPN MTH HPL IQU IRU ILU BYN AMH MYG SLC SOI
IPU YWM IJC BVP ZQM YPM ZLM TSM BFJ HVC YGM XQM WTU YOM XBM ZYU KCP
GSU PUL WLU EMU SXP JHE SVP WKM GUA ZRS LXP AYP PBL SDL JVB ZOW HBP
LKC JOC MFL MNL NQA KHN NJB QNC EPL AVL WDL AOP SGW ORL ZIH ERE REC
WZW ZXC PLF ZSA YQR LRU PMC GQG SWW FGM ZNM TWU SZR SUC DZM FBA JPL
DKC UWC GDC VIC KUK PWC UPM LUU TKN LNC NNM FWA LWA VA@ FUG OZC VDB
LFM SEA UPC LDL LYU NKM AAA TPA DGW DVP JNA MVS NGU NRC HDC RTN NOC
UUM VHB DCU EXA EXK EYR BTS EZA EXG EXH EYW EYM EEM VVS VVR EAP EEX
OST AZT DWP AZS TXL AZU VVX TXB TXA AKE AKC TXG OCO INR IEC GZE GZM
VVH AKD IAP TRE IAI IAS GZN VVV OKD AKF GZP IUE ISU IAY VOD IVC TXV
IBS ICP

 Screen 3 of 3
CUN (cont)
IUL IEP IAL VYT EYE OKN CIT ECU EXW BAL MCP PBU MEU URS LAS MOL SEM
KKC SJP CPP PYM POT OKU VYG EXR CUS WVB KJC KSW PCO COF KDE OKO EYP
MNE SEW FXN EZF 10K IOO IOW IOC GZC ENC TRI IHW ISJ IHC LYC WVD
```


APPENDIX A: ANNOTATED LIST OF RLIN DISPLAY FORMATS FOR FULL-FACE MODE AND LINE-BY-LINE MODES

FULL-FACE MODE

BIB - First Bibliographic Display Format - displays the bibliographic description in a record from main entry through size; corresponds exactly to the BI1 format.

CAT - Cataloged Holdings Display Format - displays the main entry for a cataloged title plus full holdings information for the library that owns the record being displayed.

CON - Bibliographic Control Display Format - displays classification and descriptive data in a record that corresponds almost exactly to the BC1 format.

LON - Long Bibliographic Display Format - displays all the bibliographic data in the record, including notes and tracings, formatted to resemble a catalog card; assorted control data elements appear at the bottom, along with branch and copy information when the record being displayed is from the CDF.

PAR - Partial Record Display Format - displays the main entry, the body of the entry, pagination, series information, International Standard Book Number, Library of Congress card number, RLIN identification number, and information about network libraries' holdings for the title.

REM - Remainder of Bibliographic Display Format - displays the bibliographic description in a record from series notes through tracings; corresponds exactly to the BI2 format.

APPENDIX A: INQUIRY MODULE ACCESS POINTS TABLES

The following tables list the fields and subfields in the MARC formats which the computer searches for each type of request. Key ID's, their abbreviations, and commands used with each type of request and the use of "a/non-a" key ID suffixes and truncation are included.

OCLC

APPENDIX B: EXTENDED SEARCH DISPLAY

To see titles for a COLLECTIVE ENTRY, type line, depress

DISPLAY RECD, SEND.

```
 1  BIBLE THEMES  MAERTENS THIERRY (3)
 2  Bible therapy: Estes, Arthur Jeffry, 1973
 3  Bible thesaurus, Eberhardt, Ernest Godlove, 1953
 4  Bible thoughts. Melvill, Henry.
 5  Biblical theology.   1950
 6  Biblical theology: Hincks, Edward Young, 1883
 7  Biblical theology, Lehman, Chester Kindig, 1971
 8  Biblical theology  : Vos, Geerhardus, 1975
 9  Biblical thesaurus; Bible. O.T. Genesis.  Hebrew. 1884.  1884
10  BIBLIOGRAPHIE THOMISTE MANDONNET PIERRE FELIX (3)
11  BIBLIOTHECA THEOLOGICA (3)
12  BIBLIOTHEQUE THEOLOGIQUE (8)
13  BIBLIOTHEQUE THOMISTE (7)
14  Biblioth'eque thomiste, Isaac, Jean, 1953
15  Biblioth'eque thomiste, Mahieu, Lbeon, 1942
16  Biblioth'eque thomiste : Ruello, Francis 1963
17  Biblioth'eque thomiste, Wbeber, bEdouard Henri.  1970
18  Die biblische Theologie.  Kraus, Hans Joachim.  1970
```

APPENDIX C: SERIAL CHECK-IN RECORD (EXPLANATION)

On the accompanying display (Appendix D), the reader should note that the first three lines are taken from the bibliographic record (Appendix E).

The user may then fill in the remaining fields:

1. Call number
2. Location
3. Fund
4. Remarks
5. Definition
6. Next expected issue
7. Current holdings
8. Retrospective holdings
9. Claims
10. Binding

RLIN

APPENDIX A (cont'd)

SHO - Short Data Display Format - displays basic information only--author, title, imprint, LIbrary of Congress card number, and Stanford identification number.

Note: If the records retrieved come from the cross-reference (REF) file, they will always be displayed on the REF (Full Reference Display) Format.

LINE-BY-LINE MODE

NOTATION USED: Valid abbreviations of formats are indicated by CAPITAL LETTERS--e.g., "PARtial" indicates that you can call for the PARTIAL display format by typing "par" as well as "partial".

SHOrt - Brief Data Display Format - the default display format for search results. Contains main entry, short title, imprint, L. C. card number, RLIN record ID.

PARtial - Partial Data Display Format - contains main entry, body of entry, pagination, series notes, ISBN, series tracings, L. C. card number, RLIN record ID, and holdings information in the record.

LONg - Long Data Display Format - displays all bibliographic information in record, formatted like a catalog card.

FULl - Full Bibliographic Display Format - displays all bibliographic information and holdings information in record as a list of data element mnemonic tags and values.

REF - Full Reference Display Format - always used to display records from the REF File, no matter what display formats are set.

WLN

APPENDIX A (cont'd)

AUTHOR ACCESS POINTS

Access Point	MARC Tags	Key ID	Commands	A or non-A Suffix	Truncation
Author	MEP, MEC, MEM, MEU, SEP, SEC, SEM, MEP/ MEC/SEC, MEM/SEM, AEP, AEC, AEM, AEU, SAP, SAC, SAM, MEP/ UTI, MEC/ UTI, MEM/ UTI, MEU/ UTI all sub-fields except v and e (in MEP, SEP, AEP, SAP and MEC, SEC, AEC, SAC)	AUTH A A	FIND TERM WORK WAIT	Yes (for TERM ONLY)	Yes
Author - Corporate and Meeting Name	MEC, MEM, AEC, AEM, MEC/UTI, MEM/UTI all subfields except v and e (in MEC, SEC, AEC, SAC)	ACORP AC	TERM	Yes	Yes
Author - Personal Name	MEP, AEP, MEP/UTI all subfields except v and e	APERS AP	TERM	Yes	Yes
Author - Uniform Title	MEU,AEU,MEU/UTI all subfields	ATU	TERM	Yes	Yes

APPENDIX D: SERIAL CHECK-IN RECORD (DISPLAY FORMAT)

```
Lost generation journal
ISSN:  0091-2948  OCLC no: 1786705  Frequn: t  Resulr: u

   Hld lib:      Copy:      Repr:      Subsc stat:      Loan:

   1 CLNO       b
   2 LOCN       b
   3 FUND
   4 RMKS
   5 DEFN       v vol. p no.
   6 NEXT       v p d

   Date recd:

   7 CRHD       v p
   8 RTHD       v p
   9 CLMS       b c d
  10 BNDG
```


APPENDIX B: SHO - SHORT DISPLAY FORMAT (SCREEN IMAGE)

```
SHO     C-CDF     95141SSC          CATALOG PROD C          HKB

HOL
Cady, Jack, 1932-
  Dear friends, being a letter to the I.R.S. wherein the author explicates his
non-compliance with certain Federal tax regulations and details a number of
inalienable rights / Port Townsend, Wash. : Copperhead, c1976.
CARD:76-363670      ID: 95141SSC
```


APPENDIX A (cont'd)

SUBJECT ACCESS POINTS

Access Point	MARC Tags	Key ID	Commands	A or non-A Suffix	Truncation
Subject	SUP, SUC, SUT, SUG, all subfields except o in SUP and SUC	SUBJECT IS	FIND TERM	Yes (for TERM ONLY)	Yes
Subject - Corporate and Meeting Name	SUC, SUH, all subfields except o in SUC	SCORP SC	TERM	Yes	Yes
Subject - Personal Name	SUP all subfields except o	SPERS SP	TERM	Yes	Yes
Subject - Uniform Title	SUU all subfields	STU	TERM	Yes	Yes
Subject - Geographical	SUG all subfields	SGEOG SG	TERM	Yes	Yes
Subject - Topical	SUT all subfields	STOP ST	TERM	Yes	Yes

APPENDIX E: DISPLAY OF SINGLE BIBLIOGRAPHIC RECORD (SERIAL)

```
 Screen 1 of 2
 OCLC: 1786705     Rec stat: n Entrd: 730828    Used: 770502
Type: a Bib lvl: s Govt pub:  Lang:  eng Source:  S/L ent: 0
 Repr:  Enc lvl:  Conf pub: 0 Ctry: oku Ser tp: p Alphabt: a
 Indx: u Mod rec:  Phys med:  Cont:   Frequn: t Pub st: c
 Desc:  Cum ind: u Titl pag: u ISDS:    1 Regulr: u Dates: 1973-9999
  1 010      73-643531
  2 040      DLC c DLC
  3 012      2 b 3 c - d 7 e - f - g p h - i ----
  4 022      0091-2948
  5 042      lc a nsdp
  6 043      n-us---
  7 050 00   NX504 b .L67
  8 082      700/.973
  9 090       b
 10 049      XNLL
 11 222 00   Lost generation Journal
 12 245 00   Lost generation Journal.
 13 260 00   (Tulsa, Okla., b Literary Enterprises Inc.)
 14 265      74104
 15 300       b illus. c 28 cm.
 16 350      $5.00
 17 362 0    v. 1- May 1973-
 18 650  0   Arts, American x Periodicals.
 19 650  0   Arts, Modern y 20th century z United States x Periodicals.

 Screen 2 of 2
 20 901       c Ser
TOL AKR YUS XNL JHE FGM ALM DLC NIH TRN
```

OCLC

APPENDIX F: WORKFORM DISPLAY (BOOK)

```
 OCLC: NEW          Rec stat: n Entrd: 770502     Used: 770502
Type: a Bib lvl: m Govt pub:   Lang:  ---Source: u Illus:
 Repr:  Enc lvl:  I Conf pub:  0 Ctry: xx Dat tp: n M/F/B:00
 Indx: 0 Mod rec:   Festschr: 0 Cont:
 Desc:  Int lvl:    Dates:
  1 010
  2 040       c XNL
  3 020
  4 041 -     b
  5 090       b
  6 049      XNLL
  7 1-- --    d
  8 24- -     b c
  9 250
 10 260 -     b c
 11 300       b c
 12 4-- --    d
 13 5-- -
 14 590
 15 6-- --
 16 7-- --    d
 17 8-- --
```

APPENDIX G: WORKFORM DISPLAY (SERIAL)

```
 OCLC:  NEW      Rec stat: n Entrd: 770502   Used: 770502
Type: a Bib lvl: s Govt pub:  Lang:  --- Source: u S/L unt: 0
 Repr:  Enc lvl: I Conf pub: 0 Ctry:  xx Ser tp: p Alphabt:
 Indx: u Mod rec:   Phys mod:   Cont:    Frequn: - Pub st: c
 Desc:  Cum ind: u Titl pag: u ISDS:    Regulr: r Dates: -9999
  1 010
  2 040        c XNL
  3 022
  4 041 -      b
  5 090        b
  6 049       XNLL
  7 1-- --     d
  8 2-- -
  9 245 -      b c
 10 250
 11 260 --     b c
 12 300        b c
 13 362 -
 14 4-- --     d
 15 5-- -
 16 6-- --
 17 7-- --     d
 18 8-- --
```

RLIN

APPENDIX C: PAR - PARTIAL RECORD DISPLAY FORMAT (SCREEN IMAGE)

```
|      PAR      C-CDF     9514155C              CATALOG PROD C              HKG
|FIN ID 9514155   -Result: 1 in C-CDF Warning: record updated today.
|HOL
|Cady, Jack, 1932-
|  Dear friends, being a letter to the I.R.S. wherein the author explicates his
|non-compliance with certain federal tax regulations and details a number of
|inalienable rights / by Jack Cady. -- Port Townsend, Wash. : Copperhead, c1976.
|  [18] p. ; (A Copperhead chapbook)   BST:3C    MS:n   REC:aa      RCDN: C-CDF
|ISBN: 0914742159
|-------------------------------------------------------------------------------
|336.2/4/0973
|                                                              MBRN GI
|                                        1   GI          CAT.11/05/76     C1.1
|                                        2   LA          CAT.11/05/76     C1.2
```

APPENDIX D: LONG - LONG BIBLIOGRAPHIC DISPLAY FORMAT (SCREEN IMAGE)

```
|       LOW      MRC       76-363478          CATALOG PROD C            HKG
|Record  1 of  2
|:B
|Cady, Jack, 1932-
|  Dear friends, being a letter to the I.R.S. wherein the author explicates his
|non-compliance with certain federal tax regulations and details a number of
|inalienable rights / by Jack Cady. -- Port Townsend, Wash. : Copperhead, c1976.
|  [18] p. ; 22 cm. -- (A Copperhead chapbook)
|
|  Errata slip inserted.
|  ISBN: 0914742159
|
|  1.Income tax--United States.  2.Civil rights--United States.  3.Mor and
|morals.  I.TITLE: Dear friends ...
|CARD:76363478
|HJ4652.C22   336.2/4/0973
|        CP:neu   Lang:   REC:aa      MS:n     GPC:                    FM:y
```

WLN

APPENDIX A (cont'd)

SERIES ACCESS POINTS

Access Point	MARC Tags	Key ID	Commands	A or non-A	Truncation
Series	SEP, SEC, SEN, SET, MEP/SEP, MEC, SEC, MEN/SEN, SAP, SAC, SAN, SAU, SAT all subfields except v and o (in MEP, SEP, SAP and MEC,SEC,SAC)	SERIES	TERM	Yes (Suffix)	Yes
Series - Corporate and Meeting Name	SEC, SEN, MEC/SEC, MEN/SEN, SAC, SAN all subfields except v and o (in MEC, SEC, SAC)	SECORP SEC -	TERM	Yes	Yes
Series - Personal Name	SEP, MEP/SEP, SAP, SAN all subfields except o and v	SEPERS SEP	TERM	Yes	Yes
Series - Series-Title	SEU, SAU, all subfields except v	SETITLE SET	FIND TERM	Yes (For TERM only)	Yes

OCLC

APPENDIX H: TEXT CONTAINED IN INPUT DISPLAY USING "NEW" COMMAND

```
 OCLC: NEW          Rec stat: n Entrd: 770502       Used: 770502
Type: a Bib lvl: m Govt pub:  Lang: --- Source: u Illus:
 Repr:    Enc lvl: I Conf pub: 0 Ctry: xx Dat tp: n M/F.B:00
 Indx: 0 Mod rec:    Festschr: 0 Cont:
 Desc:    Int lvl:    Dates: 1976,
  1 010
  2 040       c XNL
  3 090       b
  4 049      XNLL
  5 100 10    Sabin, Louis.
  6 245 1     Walt Frazier, no. 1 guard of the NBA / c by Louis Sabin.
  7 260 0     New York : b Putnam, c (1976)
  8 300       124 p. ; c 21 cm.
  9 490 0     Putnam Sports shelf
 10 500       Includes index.
 11 520       A biography stressing the basketball career of New York Knicks
guard Walt Frazier, including detailed accounts of key games in his career.
 12 600 10    Frazier, Walt, d 1945- x Juvenile literature.
 13 650  0    Basketball x Juvenile literature.
 14 600 11    Frazier, Walt, d 1945-
 15 650  1    Basketball x Biography.
```

```
 Screen 1 of 2
 OCLC: 1551498      Rec stat: c Entrd: 750725       Used: 770406
Type: a Bib lvl: m Govt pub:  Lang: eng Source:    Illus:
 Repr:    Enc lvl:  Conf pub: 0 Ctry:  nyu Dat tp: s M/F/B: 10b
 Indx: 1 Mod rec:    Festschr: 0 Cont:
 Desc: i Int lvl: j Dates: 1976,
  1 010       75-23458/AC/r76
  2 040       DLC c DLC
  3 020       0399204857. a 039960975X b lib. bds. : c $5.29
  4 050 0     GV884.F7 b S23 1976
  5 082       796.32/3/0924 a B a 92
  6 090       b
  7 049       XNLL
  8 100 10    Sabin, Louis.
  9 245 10    Walt Frazier, no. 1 guard of the NBA / c by Louis Sabin.
 10 260 0     New York : b Putnam, c (1976)
 11 300       124 p. ; c 21 cm.
 12 490 0     Putnam sports shelf
 13 500       Includes index.
 14 520       A biography stressing the basketball career of New York Knicks
guard Walt Frazier, including detailed accounts of key games in his career.
 15 600 10    Frazier, Walt, d 1945-  x Juvenile literature.
```

```
 Screen 2 of 2
 16 650  0      Basketball x Juvenile literature.
 17 600 11      Frazier, Walt, d 1945-
 18 650  1      Basketball x Biography.
CXP CPL DNM FEM UAP ECP APL CZL SLC PBL YVO JOC MNL WWC AOP ORL PLF
ZSA YQR TNH OST AIT TXL OCO INR AKF IEP MOL KKC SJP VYG EEW
```

Note: Fields 010, 020, 040, 050, 082 are deleted from the NEW record (TOP), as well as library holdings symbols (BOTTOM)

RLIN

APPENDIX E: REF - FULL REFERENCE DISPLAY FORMAT (SCREEN IMAGE)

```
      REF     REF          10408441H              CATALOG PROD C          MRB
Record  1 of  3
+B
BCI  RCP   WREC BEAU   RLOC MEYER
SRCE

    Twain, Mark

      see

  Clemens, Samuel Langhorne.
```

APPENDIX F: ANNOTATED LIST OF RLIN INPUT FORMATS FOR FULL-FACE AND LINE-BY-LINE MODES

FULL-FACE MODE

BC1 - Bibliographic Control Input Format - contains control data elements with descriptive codes; used to record or alter such codes, which give information like country of publication, ISBN, etc.

BI1 - Bibliographic Input Format - contains the data elements used for the main entry and body of a catalog card; used to record or alter such information.

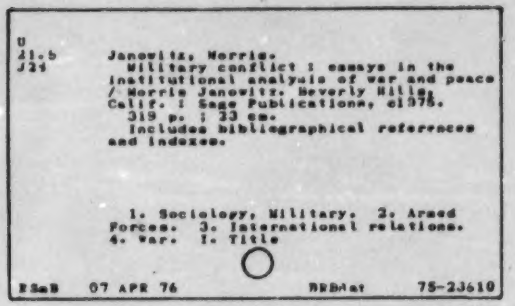
BI2 - Additional Bibliographic Input Format - contains the data elements used for all kinds of notes, including series, and all kinds of tracings, including subject, added entry, and series; used to record or alter such information.

RLIN

APPENDIX A (cont'd)

KEYWORD ACCESS POINTS

Access Point	RLMC Index	Key ID	Commands	A or non-A Qualifier	Truncation
Keyword in Title	SEL. FOR a, b, d and c sub-fields	INTITLE or TI	FIND WORK WAIT	NO	Yes
Keyword in Corporate and Meeting Author	MEE. MLN, MEE/ART, SEC. SER, MEC/SEC, MEN/MEC, SEC. AEN, SAC. SAN all sub-fields except v and o in MEC, SEC. AEC, SAC1	RACORP or KAC	FIND TERM WORK WAIT	No	Yes
Keyword in Corporate and Meeting Series	SEC. SER, MEC/SEC, MEN/SER, SAC. SAN all subfields except v and o in MEC, SEC. SAC1 SAC1	XSECORP or KSR	TERM	No	Yes
Keyword in Corporate Personal Name and Meeting Subject	SUC. SUN MEP.AEP, all subfields except o in SUC	XSCOR or XS APERS	FIND TERM TERM	No No Yes	Yes Yes Yes

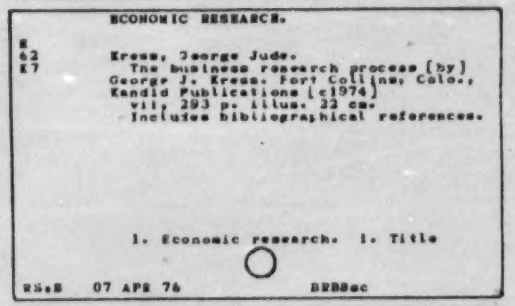


```
U
21.6      Jenowitz, Morris.
J24         Military conflict : essays in the
institutional analysis of war and peace
/ Morris Janowitz. Beverly Hills,
Calif. : Sage Publications, c1975.
            319 p. ; 23 cm.
          Includes bibliographical references
and indexes.

          1. Sociology, Military.  2. Armed
Forces.  3. International relations.
4. War.  I. Title

RSaB    07 APR 76                 BRBMat      75-23610
```

A. Main entry card.



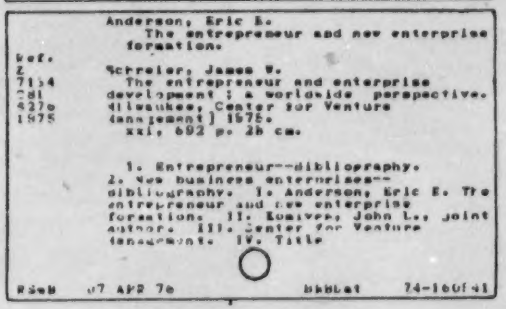
```
          ECONOMIC RESEARCH.

H
62        Kress, George Jude.
K7          The business research process [by]
George J. Kress. Fort Collins, Colo.,
Kandid Publications [c1974]
            vii, 293 p. illus. 22 cm.
          Includes bibliographical references.

          1. Economic research.  I. Title

RSaB    07 APR 76                 BRBSec
```

B. Subject added entry (may be dropped heading)



```
          Anderson, Eric E.
            The entrepreneur and new enterprise
          formation.
Ref.
Z         Schreier, James W.
7164        The entrepreneur and enterprise
C81       development ; a worldwide perspective.
A27e      Milwaukee, Center for Venture
1975      management] 1975.
            xxi, 692 p. 26 cm.

          1. Entrepreneur--Bibliography.
2. New business enterprises--
Bibliography.  I. Anderson, Eric E. The
entrepreneur and new enterprise
formation.  II. Schreier, John W., joint
author.  III. Center for Venture
management.  IV. Title

RSaB    07 APR 76                 BRBMat      74-160741
```

C. Author/title added entry showing location stamp; may be above or below call number. Heading can be printed in all upper case and begin at any indention.

HOL - Holdings Input or Update Format - contains the data elements used to record local information of the cataloging library, and the data elements used to describe the library's holdings of the cataloged item; used to record or alter such information.

LINE-BY-LINE MODE

See NOTATION USED under DISPLAY FORMATS. These formats can only be used in the CATALOG AND MAINTENANCE functions.

ADDed series - Added Series Input Format - contains series added entries.

BOTtom - Third Bibliographic Input Format - contains the data that appear near the bottom of a Library of Congress card: subject headings and tracings.

HOLdings - Holdings Input Format - contains call number and other holdings data.

MIDdle - Second Bibliographic Input Format - contains the data that appear in the middle of a Library of Congress card: series notes and other notes.

NOTes - Notes Input Format - contains notes other than series.

SERies - Series Input Format - contains series notes.

SUBjects - Subjects Input Format - contains subject added entries.

TOP - First Bibliographic Input Format - contains the data that appear at the top of a Library of Congress card: main entry, body of the entry, collation; plus control information that may be scattered on the card or not printed at all.

TRAcings - Tracings Input Format - contains added entries other than subject.

NUMERIC ACCESS POINTS

Access Point	MARC Tags	Key ID	Commands	A or non-A (Suffix)	Truncation
Record Identifier (LC Card Number or WLN Number)	CRD	IRID IR	FIND HOLD WORK WAIT	No	No
ISBN	SBN	ISBN I	FIND HOLD WORK WAIT	No	Yes
ISSN	SSN	ISSN IS	FIND HOLD WORK WAIT	No	Yes

OCLC

APPENDIX J: BOOK, POCKET, AND SPINE LABELS (FORMATS)

GV 884 .F7 S23 1976
Sabin, Louis.
Walt Frazier, no. 1 guard of the NBA /

(Four lines per inch)

GV
884
.F7
S23
1976

GV 884 .F7 S23 1976
Sabin, Louis.
Walt Frazier, no. 1 guard of the NBA /

GV 884 .F7 S23 1976

GV
884
.F7
S23

Sabin, Louis.
Walt Frazier, no. 1 guard of the NBA /

(Six lines per inch)

GV 884 .F7 S23 1976

Sabin, Louis.

Walt Frazier, no. 1 guard of the NBA /

RLIN

APPENDIX O: HOL - HOLDINGS INPUT OR UPDATE FORMAT (SCREEN IMAGE)

```
HOL-9    PRC        76-363479          CATALOG PROD C          MKB

ENT
  CALL 336.2/6/8973                                  CIB MKB    BIC mm
   LDI 11.8.76.DE                                    MBRN g1
  PRNT C

   BRN g1
   COP 1
  INST          VARI

   BRN 1a
   COP 2
  INST          VARI
  pr1  94.00
  1da  purchase order 97678765
```

OCLC

APPENDIX K: ACCESSIONS LIST, ARRANGED BY LIBRARY AND CALL NUMBER

Rhode Island College Lib Main PG 1

BF723.I6S68
Stone, Lawrence Joseph. RCM The competent infant; research and commentary. 1973

BF789.S4P4
RCM Fears relating to death and suicide. 1974

BJ1012.W48
Wheelis, Allen. RCM The moralist. 1973

BL805.F78 1969
Fowler, William Warde. RCM Roman ideas of Deity in the last century before the Christian era; lectures delivered in Oxford for the common university fund. 1969

BQ4710.T34T83
Beyer, Stephan. RCM The cult of Tārā; magic and ritual in Tibet. 1973

B421.Q684
Skousen, Willard Cleon. RCM The naked capitalist; a review and commentary on Dr. Carroll Quigley's book: Tragedy and hope, a history of the world in our time. 1972

B819.C68
Cooper, John Milton. RCM Causes and consequences of World War I. 1972

D743.5.U63
United States. Naval History Division. RCM United States naval chronology, World War II. 1955

DA448.J54
Miller, John Leslie. RCM Popery and politics in England 1660-1688. 1973

DA565.H177A3 1972
Hamilton, Edward Walter. RCM The diary of Sir Edward Walter Hamilton, 1880-1885. 1972

DD187.H82 1973
Evans, Robert John Weston. RCM Rudolf II and his world; a study in intellectual history, 1576-1612. 1973

DD229.1A3
Wilhelm II. RCM Letters from the Kaiser to the Czar, copied from government archives in Petrograd unpublished before 1920... 1920

DD247.H5F4713
Fest, Joachim C. RCM Hitler. 1974

DK161.C6
Coughlan, Robert. RCM Elizabeth and Catherine; empresses of all the Russias. 1974

DP66.B3
Ramsay, John Fraser. RCM Spain: The rise of the first world power. 1973

DR305.A7
RCM Area handbook for Yugoslavia. 1973

DR441.L3 1888a
Lane-Poole, Stanley. RCM Turkey. 1888

NLM

APPENDIX B: TAG GLOSSARY FOR BOOKS AND AUTHORITY RECORDS

TAG GLOSSARY FOR BOOKS

AEC Added entry - corporate name
AED Added entry - title traced differently from short title
AEM Added entry - meeting or conference
AEP Added entry - personal name
AEU Added entry - uniform title
CAL LC call number
CAS Cataloging source
COL Collation
COP Copy, issue, offprint statement
CRD Control number (record identifier)
DDC Dewey decimal classification number
EDN Edition statement
FFD Fixed fields
GAC Geographic area code
IMP Imprint
LAN Language(s)
MEC Main entry - corporate name
MEM Main entry - meeting or conference
MEP Main entry - personal name
MEU Main entry - uniform title
NAL NAL call number
NEN National bibliography number
NLM NLM call number
NOA Annotation or abstract note
NOB Bibliography note
NOC Contents note
NOD Dissertation note
NOG General note
NOW "Bound with" note
OAN Overseas acquisitions number
PRI Bibliographic price
ROM Romanized title
SAC Series added entry - corporate name
SAM Series added entry - meeting or conference
SAP Series added entry - personal name
SAT Series added entry - title
SBN Standard book number
SDC Superintendent of Documents classification
SEC Series - corporate name
SEM Series - meeting or conference
SEP Series - personal name
SER Series - untraced or traced differently
SET Series - title
SUC Subject added entry - corporate name
SUG Subject added entry - geographic
SUM Subject added entry - meeting or

OCLC

APPENDIX L: ACCESSIONS LIST, ARRANGED BY LIBRARY AND SUBJECT
(Page 1 of 2)

Rhode Island College Lib Main PG 1

Bianciotti, Hector.
PQ77b8.I3.I23B72
Ce moment qui s'achève; roman. 1972

Carpenter, Edmund Snow.
PS3553.A762T5
They became what they beheld. 1970

Child, Lydia Maria (Francis).
PS1293.Z6 1969
Letters of Lydia Maria Child. 1969

Dumas, Alexandre.
PQ2231.D3 1972
La dame aux camélias. 1972

Eisenhower, Dwight David.
E836.A42
Dear General; Eisenhower's wartime letters to Marshall. 1971

Evtushenko, Evgenii Aleksandrovich.
PG3476.E96A2 1971
Poems chosen by the author; Yevgeny Yevtushenko. 1971

Lazarillo de Tormes.
PQ6407.A1 1970
Lazarillo de Tormes. Vida del Buscón don Pablos Estudio preliminar de Guillermo Díaz-Plaja. 1973

Malraux, André.
PQ 2625.A 71607
Oraisons funèbres. 1971

Sarraute, Geneviève.
PQ2679.A67Q8
Vicerears. 1973

Verma, Bhagvati Charan.
PK2085.V38C45
Chitralekha; a novel. 1966

Wright, Richard Bruce.
PS3545.R81518
In the middle of a life; a novel. 1973

ABILITY GROUPING IN EDUCATION.
Hartill, Rufus MacKay.
LB3061.H35 1972
Homogeneous grouping as a policy in the elementary schools in New York City. 1973

ADULT EDUCATION--NORTH CAROLINA.
Lyon, Ralph Hugo.
LC6252.N8L86 1972
The basis for constructing curricular materials in adult education for Carolina cotton mill workers. 1972

ADULT EDUCATION--UNITED STATES.
Saith, George Baxter.
LC6301.C856 1972
Purposes and conditions affecting the nature and extent of participation of adults in courses in the Home Study Department of Columbia University, 1938-1952. 1974

AGRICULTURE, COOPERATIVE--ISRAEL.
Baldwin, Elaine.
HD1491.I7B34
Differentiation and co-operation in an Israeli veteran moshav. 1973

JUN 10, 1974 to JUN 30, 1974 .... Ohio College Library Center

WLN

APPENDIX B (cont'd)

conference
SUP Subject added entry - personal name
SUT Subject added entry - topical
SUU Subject added entry - uniform title
TIL Title statement
UTI Uniform title
WFF Washington fixed field

TAG GLOSSARY FOR AUTHORITY RECORDS

FNB Former name ref.--series corp.
FNC Former name ref.--corporate
FNG Former name ref.--geographic
FNL Former name ref.--series meeting
FNM Former name ref.--meeting
FNO Former name ref.--series personal
FNP Former name ref.--personal
FNT Former name ref.--topical
FNU Former name ref.--uniform title
LNB Later name ref.--series corp.
LNC Later name ref.--corporate
LNG Later name ref.--geographic
LNL Later name ref.--series meeting
LNM Later name ref.--meeting
LNO Later name ref.--series personal
LNP Later name ref.--personal
LNT Later name ref.--topical
LNU Later name ref.--uniform title
MSG Message
NAB Author heading--series corp.
NAC Author heading--corporate
NAL Author heading--series meeting
NAM Author heading--meeting
NAO Author heading--series personal
NAP Author heading--personal
NAU Author heading--uniform title
NOA See also note
NOE See note
NON General see note
NOR Reference note
NOS Scope note
NOV Verification note
RFB Refer from ref.--series corp.
RFC Refer from ref.--corporate
RFG Refer from ref.--geographic
RFL Refer from ref.--series meeting
RFM Refer from ref.--meeting
RFO Refer from ref.--series personal
RFP Refer from ref.--personal
RFS Refer from ref.--title series

OCLC

APPENDIX L (cont'd): (Page 2 of 2)

Rhode Island College Lib Main PG 3

ANTHROPOLOGY.
Kottak, Conrad Phillip. Anthropology: the exploration of human diversity. 1974
GN24.K67

Arab COUNTRIES--POLITICS--ADDRESSES, ESSAYS, LECTURES.
Association of Arab-American University Graduates.
The Arab world from nationalism to revolution. 1971
DS63.6.A77

Art.
Kuh, Katharine.
Art has many faces: the nature of art presented visually. 1951
N7433.K8

Ogawa, George Howard.
Art and nature appreciation. 1933
N7425.O6

Art CRITICISM.
Pepper, Stephen Coburn.
Principles of art appreciation. 1949
N7435.P44

Art CRITICISM--HISTORY.
Venturi, Lionello.
History of art criticism. 1936
N7435.V42

Art--PSYCHOLOGY.
Schaefer-Simmern, Henry.
The unfolding of artistic activity; its basis, processes, and implications. 1950
N71.S35

Art--STUDY AND TEACHING.
Seigel, Hugo G.
Art appreciation. 1949
N7435.S6 1949

Art--UNITED STATES.
Pearson, Ralph M.
Experiencing American pictures [by] Ralph M. Pearson. 1943
N6511.P4

AUDIO-VISUAL EQUIPMENT.
Ebbeck, Sidney C.
Operating audio-visual equipment. 1968
TS2301.A7E2 1968

AUTOMOBILE DRIVER EDUCATION--LOUISIANA.
Boyer, William F.
Driver and traffic safety education performance curriculum. 1971
LB1854.B5.B4

BOLIVIA.
Bell, Thomas E.
Area handbook for Bolivia. 1974
F3308.B44 1974

BOOKS AND READING FOR CHILDREN.
McAlpin, Mary Alice
Mitchell.
The relationship of reading to the social acceptability of sixth grade children. 1972
LB1530.M4M32 1972

BRAILLAS-ARMENIS, PETROS GRIGORIOS, 1815-1884.
Moutsopoulos, Evangelos.
Petros Grigor Brailas-Armenis. 1974
DJ515.B84M6

BRAZIL--RELATIONS (GENERAL) WITH ASIA.
Selcher, Wayne A.
The Afro-Asian dimension of Brazilian foreign policy, 1956-1974. 1974
F2538.3.A44

BRIDE PRICE.
Goody, Jack Rankine.
Bridewealth and dowry. 1973
GN480.1.G66 1973

Jun 10, 1974 to JUN 30, 1974 .... Ohio College Library Center

WLN

APPENDIX B (cont'd)

RFT Refer from ref.--topical
RFU Refer from ref.--uniform title
SAB See also ref.--series corp.
SAC See also ref.--corporate
SAG See also ref.--geographic
SAL See also ref.--series meeting
SAM See also ref.--meeting
SAO See also ref.--series personal
SAP See also ref.--personal
SAS See also ref.--title series
SAT See also ref.--topical
SAU See also ref.--uniform title
SEB See reference--series corp.
SEC See reference--corporate
SEG See reference--geographic
SEL See reference--series meeting
SEM See reference--meeting
SEO See reference--series personal
SEP See reference--personal
SES See reference--title series
SET See reference--topical
SEU See reference--uniform title
SUC Subject heading--corporate
SUG Subject heading--geographic
SUM Subject heading--meeting
SUP Subject heading--personal
SUT Subject heading--topical
SUU Subject heading--uniform title
TIS Title series heading
UFB Used for ref.--series corp.
UFC Used for ref.--corporate
UFG Used for ref.--geographic
UFL Used for ref.--series meeting
UFM Used for ref.--meeting
UFO Used for ref.--series personal
UFP Used for ref.--personal
UFS Used for ref.--title series
UFT Used for ref.--topical
UFU Used for ref.--uniform title

APPENDIX C: COMPLETE HEADING DISPLAY

VOCABULARY DISPLAY

VOCABULARY DISPLAY

COLLECTION IDS: 0,1

```
v1   voc00-617519  db  08/18/76  10/13/78  10/18/76  ----      -----
     SUT-L    a     Anthropology.
     SAT-L    a     Acculturation.
     SAT-L    a     Anthropo-geography.
     SAT-L    a     Archaeology.
     SAT-L    a     Civilization.
     SAT-LO   a     Color of man.
     SAT-LO   a     Craniology.
     SAT-LO   a     Educational anthropology.
     SAT-LO   a     Ethnology.
     SAT-L    a     Man.
     SAT-L    a     Maritime anthropology.
     SAT-L    a     Medical anthropology.
     SAT-L    a     National characteristics.
     SAT-L    a     Physical anthropology.
     SAT-L    a     Social change.
     SAT-L    a     Women Conduct of life.
     RFT-L    a     Civilization.
     RFT-LO   a     Ethnology.
     RFT-L    a     Man.
     NOA6     a     See also names of races, tribes, etc., e.g. Caucasian
                    race; Guayaqui Indians; and subdivision,—Race
                    question under names of countries.
```

APPENDIX D: FULL HEADING DISPLAY

AUTHORITY DISPLAY

AUTHORITY DISPLAY

```
COLLECTION ID.  1
Anthropology.
     See also names of races, tribes, etc., e.g. Caucasian race;
      Guayaqui Indians; and subdivision,—Race question under names
      of countries.
  SA Acculturation.
     Anthropo-geography.
     Archaeology.
     Civilization.
     Color of man.
     Craniology.
     Educational anthropology.
     Ethnology.
     Man.
     Maritime anthropology.
     Medical anthropology.
     National characteristics.
     Physical anthropology.
     Social change.
     Women Conduct of life.
```

APPENDIX E: MULTIPLE HEADINGS DISPLAY

AUTHORITY DISPLAY

AUTHORITY DISPLAY

COLLECTION ID=ALL

1. Airplanes.
2. —Accidents.
3. —Air refueling.
4. —Airworthiness.
5. —Congresses.
6. —Periodicals.
7. —Standards.
8. —Assisted take-off.
9. —Auxiliary power supply—Congresses.
10. —Bibliography.
11. —Brakes.
12. —Catalogs.
13. —Cockpits.
14. —Congresses.
15. —Cold weather operation.
16. —Collectors and collecting.
17. —Periodicals.
18. —Control surfaces.
19. —Congresses.
20. —Control systems.

APPENDIX F: FULL BIBLIOGRAPHIC RECORD DISPLAY

BIBLIOGRAPHIC DISPLAY

COLLECTION IDS= 1,0

```
as   74-645658      db  02/02/78  11/18/77  03/21/78  LC        LC
   LCN      a          74645658
   TILN4    a       The Journal of consumer research.
   DATN     a       v. 1-   June 1974-
   IMPN     ab      Worcester, Mass. Heffernan Press.
   COL      bc      illus. 28 cm.
   MOY      a       Vols. for June 1974-   co-sponsored by American
                    Association for Public Opinion Research and others.
   SUT-L    ax      Consumers Periodicals.
   SUT-L    ax      Motivation research (Marketing) Periodicals.
   AECNA    a       American Association for Public Opinion Research.
   ADD      a       222 So. Riverside Plaza, Chicago, Ill. 60606
   PRI      a       $25.00
   VATAC    af      Consumer research June 1974-
   KEYSO    a       Journal of consumer research
   ABB.     a       J. consum. res.
   COO      a       JCSRBL
   AUT      aa      lc nsdp
   SSN.     a       0093-5301
   CAL      ab      HF5415.3 .J68
   DDC      a       381/3
   CAS      dd      GCL NSDP
   FFD  PUB STAT= c   BEG DT= 1974 END D= 9999 CNTRY= nau   FREQ= q
          REGLTY= u      ISDS=   TYPE SER= p  PHY MED=       REPRO=
        TYPE MAT=   CONTENTS= bs  GOV PB=       CONF=       TI PG=
          INDEX=    CUM IND=    ORG ALPH=   SL ENTRY=     MOD REC=
          CAT S=    CAT FORM=         LAN= eng
```

APPENDIX G: MULTIPLE BIBLIOGRAPHIC RECORDS DISPLAY

s 1-20 BIBLIOGRAPHIC DISPLAY
COLLECTION ID.ALL

14. Akhtar, Shahid. Health care in the People's Republic of China : a bibliography with abstracts / c1975] 182 p. :
10. Andrews, Theodora. A bibliography of the socioeconomic aspects of medicine / 1975. viii, 209 p. :
6. Computer Horizons, Inc. Health services research journal bibliography for 1965-1969. 1971. vii, 342 p.
2. Fortuine, Robert. The health of the Eskimos: a classified bibliography 1857-1966. n.d.] iii, 66 l.
12. Great Britain British Council. Community health and related topics: a select and annotated list of books & periodicals [1974] 42 p.
11. Harrison, Ira E. Traditional medicine : implications for ethnomedicine, ethnopharmacology, maternal and child health, mental health, and public health : an annotated bibliography of Africa, Latin America, and the Caribbean / 1976. ix, 229 p. :
3. Nederlands Instituut voor Praeventieve Geneeskunde. List of publications, 1967. 1967. [31] l.
13. Perkins, Lee, A bibliography of Soviet sources on medicine and public health in the U.S.S.R. / 1975. xix, 235 p. :
4. Potter, Helen Rose. Social and economic dimensions of health and illness behavior in New Mexico, an annotated bibliography. 1969. ix, 220 p.
18. Sharma, Prakash C. A selected bibliographic research guide to materials on public health and medical sociology 1973. 131 p.
7. Source, Inc. Organizing for health care: a tool for change [1974] 249 p.
1. United States. Office of Economic Opportunity. Comprehensive Health Services. Bibliography of the comprehensive health service program. 1970. iii, 31 p.
5. United States. Health Services and Mental Health Administration. Publications of the Health Services and Mental Health Administration. 1971. vi, 158 p.
16. White, Anne U., Rural water supply and sanitation in less-developed countries : a selected annotated bibliography / c1974] 81 p. :
9. World Health Organization. Regional Office for Europe. Reports on activities of the Regional Office for Europe, 1949-1969. 1969] 40 p.
17. World Health Organization. Reference material for health auxiliaries and their teachers = Mat eriel de r ef erence destin e aux auxiliaires sanitaires et a leurs enseignants. 1976. iv, 97 p. :
8. World Health Organization. World Health Organization publications catalogue 1947-1971. 1971. 171 p.
15. Wright, Phyllis L. Public Health Service publication numbers, 1950-1971, converted to Superintendent of Documents classifications / 1976. [70] p. :

WLN

APPENDIX H: UNION CATALOG HOLDINGS DISPLAY

HOLDINGS DISPLAY

COLLECTION ID.NET

2. Harrison, Cynthia. Women's movement media : 75-002484
R 016.3014 H245 MaSp
Z7964.U49H37 MaOE
016.3014 HARRISO Ma
5. Krichmar, Albert. The women's movement in the seventies : 77-021416
R 016.301412 MaSKC
1. The New woman's survival catalog. 73-085371
HQ1426.N48 1973 MaOE
OVERSIZE 301.412 NEW WOM Ma
016.3014 NEW WOM MaTPC MaMaS MaV MaTMH-R
301.412 NEW WOM MaMoN MaBr
3. The New woman's survival sourcebook / 75-008260
HQ1426.N49 MaOE
OVERSIZE 016.3014 N42s MaSp
016.3014 NEW WOM MaTPC MaV Ma MaKeM MaBr
4. A practical guide to the women's movement / 75-015943
301.412 PRACTIC Ma

WLN

APPENDIX I: WAITING FILE RECORD DISPLAY

WAITING DISPLAY

1.	DEMOP	ref:567.78:Bd9	win7H017484	08/30/7
2.	DEMOP		win7801748H	08/29/7

APPENDIX J: BIBLIOGRAPHIC RECORD INPUT SCREEN

```
 FORM                    QUIT        INPUT,                 WLN INPUT SCREEN--FILMS
REC TYPE  g  BIB LV  m  ENC LV      RID
REPLACE RID
ME
TIL
IMP
PRO
PHY
SE
NO
SU
AE
SA
OTHERS
GAC                                 SFN
LAN                                 CAL
DOC
CAS
DFF
  LENGTH          TY MAT            TECH          ME IN B
INTEL LV          DATE KY           DATE 1        DATE 2
  CNTRY           MODREC            CAT S         GOV PUB          CAT FORM
```

APPENDIX K: BIBLIOGRAPHIC RECORD EDIT SCREEN

```
                                                              EDIT SCREEN

REMOVE    DELETE      DISPLAY     VERIFY      EDIT,
  amd  76-14489       chg  06/07/76  07/10/76  10/18/76  -----      MA
     MEPS      a      Chicorel, Marietta.
     TILAO     abc    Chicorel index to reading and learning disabilities :
                      an annotated guide / edited by Marietta Chicorel.
     EDN       a      1st ed.
     IMP       abc    New York : Chicorel Library Pub. Corp., [1976]
     COL       a      p. cm.
     SERU      a      Chicorel index series ; v. 14A
     SBN       ac     0877290191 : $60.00
     NOB       a      Bibliography: p.
     NOG       a      Includes indexes.
     SUT-L     ax     Reading disability Indexes.
     SUT-L     ax     Learning disabilities Indexes.
     CAL       aba    Z5818.L3 C54 LB1050.5
     DDC       a      016.3719
     FFD       CONF=        FEST=       INDEX= x  ME IN B= x
          INTEL LV=          FIC=        BIOG=        LAN= eng DAT KY= s
             DATE1= 1976 DATE2=         CNTY= nyu  ILLUS=       REPRO=
          CONTENTS= bi   MODRC=         CAT S=     GOV PUB=   CAT FORM= i
```

APPENDIX L: COMPARE SCREEN (INCOMING RECORD TO DATA BASE RECORD)

```
                                                                  COMPARE SCREEN
  PROOF      POSTPONE     REMOVE      NEXT        DISPLAY        RETURN.
  VERIFY     QUIT
1  am   76-14489          chg  06/07/76  07/10/76  10/18/76  Wa        Wa
2  ams  76-144d9          do   06/07/76  07/10/76  10/18/76  -----     LC
       MEPS      a        Chicorel, Marietta.
       TILAO     abc      Chicorel index to reading and learning disabilities :
                          an annotated guide / edited by Marietta Chicorel.
       EDN       a        1st ed.
       IMP       abc      New York : Chicorel Library Pub. Corp., [1976]
1      COL       ac       329 p. 26 cm.
2      COL       a         p. cm.
       SERU      a        Chicorel index series ; v. 14A
       SBN       ac       0877290191 : $60.00
1      NOB       a        Bibliography: p. 320.
2      NOB       a        Bibliography: p.
       NOG       a        Includes indexes.
       SUT-L     ax       Reading disability Indexes.
       SUT-L     ax       Learning disabilities Indexes.
       CAL       aba      Z5818.L3 C54 LB1050.5
       DOC       a        016.3719
1      CAS       d        Wa
       FFD       CONF=        FEST=      INDEX= x  ME IN B= x
            INTEL LV=          FIC=       BIOG=        LAN= eng DAT KY= s
              DATE1= 1976 DATE2=         CNTY= nyu  ILLUS=       REPRO=
           CONTENTS= bi   MODRC=       CAT S=    GOV PUB=   CAT FORM= 1
```

APPENDIX M: INTERIM RECORD INPUT SCREEN

```
                                                  WLN INTERIM INPUT SCREEN — BOOKS
VERB  interim,
REC TYPE  a   BIB LV  m                                RID
AUTH TYPE
   NAME
   NUM SUBUNIT
   TITLE PLACE
   AUTH DATE
TITLE
   FILING IND
EDITION
IMPRINT
COLLATION
SERIES
ISBN
NOTE
```

APPENDIX N: CATALOGING PRODUCTS REQUEST SCREEN

```
                                                    WLN REQUEST FOR PRODUCTS SCREEN

VERB  enter-rcp,
COPIES              PROFILE
CARD SETS           EXTRA MAINS          LABEL SETS
CALL TYPE           PREFIX               BODY
SUBJ SOURCE
```

APPENDIX O: DETAILED HOLDINGS (SINGLE COPY) INPUT SCREEN

```
dhnew 1                                                    WLN COPY ADD SCREEN

The unsettling of America :/Berry, Wendell, RID:   77003729
 verb  enter-dhnew
     PREFIX              RD PREFIX                 BODY
      COPY#                STATUS              CALL TYPE            PIECE#
       LOC1                 LOC2                  LOC3                LOC4
  LOAN CODE            MAT TYPE              USE TYPE            LIM USE
 PRICE TYPE               PRICE                 RB DATE

 HOLDINGS STATEMENT:
    VOLUMES
    DATES
    INC NOTE
    REF NOTE
    RET NOTE
 GEN NOTE
 INT NOTE
 LIM NOTE
 BDW NOTE
 LOC NOTE
 PIECE INFO
```

APPENDIX P: DETAILED HOLDINGS (MULTIPLE COPY) INPUT SCREEN

```
dhmult 1                                          MLN MULTIPLE COPY ADD SCREEN
he unsettling of America :/Berry, Wendell, RID#   77003729
verb  enter-dhmult

  PREFIX                    RD PREFIX                    BODY
MAT TYPE                    PRICE                      CALL TYPE

...COPY#      LOC1          LOC2          LOAN         PIECE#        NOTE        NOTE
                                          CODE                       TYPE
{     }{      }{            }{            }{     }{    }{           }{     }{
{     }{      }{            }{            }{     }{    }{           }{     }{
{     }{      }{            }{            }{     }{    }{           }{     }{
{     }{      }{            }{            }{     }{    }{           }{     }{
{     }{      }{            }{            }{     }{    }{           }{     }{
{     }{      }{            }{            }{     }{    }{           }{     }{
{     }{      }{            }{            }{     }{    }{           }{     }{
{     }{      }{            }{            }{     }{    }{           }{     }{
{     }{      }{            }{            }{     }{    }{           }{     }{
{     }{      }{            }{            }{     }{    }{           }{     }{
```

WLH

APPENDIX Q: IN-PROCESS ORDER RECORD DISPLAY

ACQUISITIONS DISPLAY

STATUS: EDITED MANUAL-PO ALL-PAY-CREATED AUTO-CLAIM NOTIFY-WHEN-ORDERED
CAT-PROD-AT-ORDER

ORDER # 79-000021 . CREATED 781023 BY OPER 1
LAST UPDATED 781023 BY OPER 1 LAST BATCH UPDATE

ORDER TYPE	REGUL	VENDOR ID	BT/A	QTY	4
SOURCE CODE	PURCH	VEN STK#		# PSLIPS	0
RECORD TYPE	LAP	ACCNI# WITH VEN		#CLAIMS	0
BIB LEVEL	MONO	LIST PRICE	9.00	I CLM INT	60
ENCODING LEVEL	0	EFFECTIVE		S CLM INT	90
PHYSICAL MEDIA		CURRENCY TYPE		CLM INV INT	0
UNITS RECEIVED	1	COST CENTER	0	CANCEL INT	0
SERIAL TYPE		PAYMENT FREQ	UNSPECI	REORDER INT	365
YEAR PUBL		APPROVAL	NONE		

ORDERED	781023	LAST CLAIN	HOLD
RECEIVED		NEXT CLAIN 781223	ORDER NOTIFICATION
CANCELLED		REORDER	RECD NOTIFICATION
CAN CONF		RENEW	VENDOR CORRESP

LCN/01: ac 68000129
AUTHOR/01: Price, Willard, 1887-
TITLE/01: 14 The amazing Amazon! with maps by the author.
PUBLISHER/01: New York, J. Day Co. [1952]
CITED IN/01: Pn 4/24/78

APPENDIX R: ACCOUNT STATUS DISPLAY

3002 002 03d 543 8765a 65 REGULAR

Physics

FY 79 PO 781016 CD 780803 TAX 00000002
EB 05 PI 002225 ED 780701 PIH 00000002
TD 790630

ALLOC .	4,000.00	ENC	1,386.00	DIS	470.45	F/B	2,143.55
		JUL	0.00		0.00		
		AUG	409.00		190.00		
		SEP	300.00		267.00		
		OCT	677.00		13.45		
		NOV	0.00		0.00		
		DEC	0.00		0.00		
		JAN	0.00		0.00		
		FEB	0.00		0.00		
		MAR	0.00		0.00		
		APR	0.00		0.00		
		MAY	0.00		0.00		
		JUN	0.00		0.00		
		EXT	0.00		0.00		

APPENDIX $: ACQUISITIONS ON-LINE PROFILES DISPLAYS

PROFILE OPTIONS

PROFOPTS, Washington State Library AGENCY (00000385)

CLAIM INTERVALS
INITIAL (090) SUBSEQUENT (045) INVOICE (030)

CANCEL INTERVAL (000) CATALOG PRODUCTS WAIT INTERVAL (000)

AUTOMATIC
CLAIM (Y) CANCEL ( ) REORDER ( ) PROCESSING SLIPS ( )

CATALOG PRODUCTS REQUESTED AT
ORDER TIME ( ) RECEIPT TIME (Y)

NOTIFY REQUESTOR AT TIME OF
ORDER (Y) RECEIPT ( ) CATALOG ( )

ACCOUNTING PROFILE OPTIONS

PROFACCT, INSTITUTION #a
ACCOUNTING BEGIN MONTHS ENCUMBRANCE (06) DISBURSEMENT (07)
AUTO GENERATION OF PO NUMBERS ( )

FISCAL YEAR	NEXT PO #	NEXT VOUCHER/REFERENCE#
1 (78)	(000000)	(0000000001)
2 (79)	(000000)	(0000000001)

NUMBER OF LEADING ALPHA CHARACTERS IN VOUCHER/REFERENCE # (0)

ACTION TAKEN IF EXTERNAL VENDOR# IS MISSING AT TRANSACTION GENERATION TIME
ISSUE WARNING ( ) REJECT ATTEMPT ( ) USE WLN VENDOR# (Y)
ARE PREPAYMENTS ALLOWED (Y)

RECEIVING REPORTS USES CONTROL CARD FOR REFERENCE# ( ) OR VOUCHER# ( )
OR PROFILE OPTION FOR REFERENCE# ( ) OR VOUCHER# (Y)

FY EXTENSION EVEN YEAR ( ) ODD YEAR (Y)

LIST TRANSACTION DETAILS FOR DISBURSEMENTS (Y) ENCUMBRANCES (Y)
SPECIAL ( ) ACCOUNT CR/UP ( )
LEDGER TRANSACTIONS COPIED FROM POSTING ( )

APPENDIX T: ORDER INPUT SCREEN AND MULTIPLE LOCATIONS/ENCUMBRANCES INPUT SCREEN

```
                                                                ORDER SCREEN
ORDERSCREEN,   PO# 78-000987   ISBN                    ISSN
  AU:   Klemm, Edwin O.
  TI:10 Upon request, God in action: the amazing part in the history: United Sta
es and China, by Edwin O. Klemm.
PUB:   Saginaw, Mich., 1971)
SER:

 OI:
VID# 348          QTY   1          FY   79  ACCT# 1203      ENCAMT   18.00
AA:
CAT#                    APGM  NONE          LISTPR 18.00      CUMINT  060
REC TYPE LAP            BIBLV MONO          ORD TYPE  REGUL   SOURCE  PURCH
BID      a7903086       ORD IND:
CIT:
NOT:
REMARKS:
RES:
PIECE CODE          NCOPIES        PLOC          SLOC          SLOC
COPY IND:                                    COPY#   CALL#
INV#                INVAMT         LINE#      PAGE#          INV DATE
```

```
LENCADDS,   PO # 78-000003   FY ( 79 )                    LOC/ENC SCREEN
  # OF          PRIMARY          SECONDARY          SECONDARY          ENCUMBRANCE
  COPIES      LOCATION         LOCATION-1         LOCATION-2         ACCOUNT      AMOUNT
( 1 ) ( waot ) ( ref ) ( ) ( 6042 ) ( 12.00 )
( 1 ) ( wa-ec ) ( ref ) ( ) ( 6043 ) ( 12.00 )
(   ) (   ) (   ) (   ) (   ) (   )
(   ) (   ) (   ) (   ) (   ) (   )
(   ) (   ) (   ) (   ) (   ) (   )
(   ) (   ) (   ) (   ) (   ) (   )
(   ) (   ) (   ) (   ) (   ) (   )
```

APPENDIX U: INVOICE IMPUT SCREENS

MULTIPLE PAYMENT SCREEN

```
                                                    INV MULTI PAYMENT SCREEN 1
INVSCREEN1,  PO# 78-000263  TAX CODE ( COMP )  VENDOR ( 470        )
  ORDER RECEIVED ( 10/17/78 )  ORDER QTY  002
  ITEM RECEIVED ( 10/17/78 )  INV QTY ( 001 )  AMOUNT ( 19.00    )
  INV DATE  ( 10/14/78 )  INV# ( L47847     )  PAGE ( 001 )  LINE ( 01 )

  OCC#   FY   ACCOUNT#      QTY          OCC#   FY   ACCOUNT#      QTY
   01    79   00000002   ( 001 )          02    79   00000012   ( 001 )
                         (     )                               (     )
                         (     )                               (     )
                         (     )                               (     )
                         (     )                               (     )
```

MULTIPLE ORDERS SCREEN

```
                                                    INV MULTI ORDERS SCREEN
INVSCREEN3,  TAX CODE ( SALES )  VENDOR ( BT/W      )
 RECEIVED ( 10/17/78 )  INV# ( A5648C.    )  PAGE ( 001 )  INV DATE ( 10/16/78 )

      P O #          AMOUNT        LINE      REMARKS
( 78-562     ) ( 14.95     ) ( 1 ) (                                    )
( 78-301     ) ( 26.89     ) ( 2 ) (                                    )
( 78-319     ) ( 8.00      ) ( 3 ) (                                    )
( 78-296     ) ( 14.50     ) ( 4 ) (                                    )
( 78-603     ) ( 37.00     ) ( 5 ) (                                    )
( 78-441     ) ( 4.75      ) ( 6 ) (                                    )
( 78-124     ) ( 12.95     ) ( 7 ) (                                    )
( 78-414     ) ( 14.00     ) ( 8 ) (                                    )
```

APPENDIX V: JOURNAL VOUCHER AND ADD ACCOUNT INPUT SCREENS

```
JVSCREEN                                                    JOURNAL VOUCHER
JV,   ACCOUNT ( 4503      ) FISCAL YEAR      ( 79 )     ENC/DIS ( DIS )
      AMOUNT  ( 1500.00   ) VOUCHER/DOCUMENT ( Y3538      )
      VENDOR# ( 35        )
      VENDOR NAME ( BT/W                                )
      REMARKS (
               )
```

```
                                                          ADD ACCOUNT
ACCOUNTADD1,   ACCOUNT ( o001      )    FY  ( 79 )    TYPE  ( regl )
    ACCOUNT CODE ( 001 51 020 0003  JH                  )
    ALT CODE     ( 001 51 020 0008 YT                   )
    ALLOCATION   ( 002o000.00 )
    AREA CODE    ( SOC SCI   )          SUB-AREA    ( SOCIOL    )
    TAX ACCOUNT  ( T490      )          PIH ACCOUNT ( P87       )
    EFFECTIVE    ( 05/01/78  )          TERMINATES  ( 07/31/79  )
    DESCRIPTION  ( Sociology periodicals     )
    START MONTH  ( 07 )                 ENC BEGIN   ( 06 )
```

APPENDIX W: VENDOR, LIBRARY, AND LIBRARY LOCATIONS INPUT SCREENS

```
                                                        UPDATE VENDOR

VENDORUPS,      VENDOR# 000000035

                NAME ( BAKER AND TAYLOR COMPANIES          )
                ORDER ADDRESS
                     ( WESTERN DIVISION                    )
                     ( 380 EDISON WAY                      )
                     ( RENO  NV  89564                     )

                PAYMENT ADDRESS
                     ( BOX 37286                           )
                     ( SAN FRANCISCO  CA  94137            )
                     (                                     )
```

```
                                                        UPDATE LIBRARY

LIBUPS,         INSTITUTION  WaU

                NAME ( University of Washington           )
                ADDRESS
                     ( Suzzallo Library                    )
                     ( Acquisitions Division               )
                     ( Seattle, Wa. 98195                  )
```

```
                                                        ADD LIBRARY LOC

LLOCADDS,       INSTITUTION ( WaWaN   )  LOCATION ( Ton      )

                NAME ( Tonasket Public Library            )
                ADDRESS
                     ( 204 Okanogan Blvd.                  )
                     ( Tonasket, WA 98763                  )
                     (                                     )
```

WLN

APPENDIX X: PURCHASE ORDER, PROCESSING SLIPS, AND VENDOR REPORT FORMS

PURCHASE ORDER # 79-000064
DATE 03/29/78

SIMON AND SCHUSTER'S COMPLETE GUIDE TO FRESHWATER AND MARINE AQUARIUM FISHES / TEXT FOR THE ITALIAN ED. BY FRANCESCO BIANCHINI ... ET AL. ; PHOTOS. BY GIUSEPPE MAZZA ; AMERICAN ED. EDITED BY MICHAEL K. OLIVER.. A FIRESIDE BOOK
NEW YORK : SIMON AND SCHUSTER, C1977.

INSTRUCTIONS

QTY	LIST PRICE	VEN CAT #
1	0.00	

0671227076 ;

VENDOR ACCT #

BILL TO
Washington State Library
Olympia
WA 98504

SHIP TO

BAKER AND TAYLOR COMPANIES
WESTERN DIVISION
340 EDISON WAY
RENO NV 89502

SIGN

INSTITUTION DEMOP 08/15/78 SET 1 78-008686
TRIPS AND TRAILS, 1.
STERLING, E.M.

RUSH/CAT PROD REQ AT REC/RECEIVED WLN7801971 BT/W

1 - WAREIV 1
2 - WADAP 1
3 - WAMEH 2

REP 769.98 STERLIN

WASHINGTON STATE LIBRARY VENDOR REPORT W L N 05/05/78

PURCHASE ORDER: 74-000933
PURCHASE ORDER DATE: 03/29/78 NEXT CLAIM DATE: 05/28/78

TITLE: IN THE LOOKING GLASS : TWENTY-ONE MODERN SHORT STORIES BY WOMEN / EDITED BY NANCY DEAN AND MYRA STARK.
AUTHOR:

SERIES:

ORDER INFORMATION:

CLAIM INFORMATION:

VENDOR NAME: WILEY, JOHN & SONS INC.
ACTIFY:
VENDOR REPORT: 05/05/78 VENDOR RECEIVED THE PAYMENTS

ENCUMBERING ACCT: 1 BIB LEV: M ORDER TYPE: REGULAR

APPENDIX Y: CLAIM LETTER FORM

TO

CLAIM

THE MATERIAL REFERRED TO ABOVE HAS NOT BEEN RECEIVED. PLEASE REPORT ON ITS STATUS BY CHECKING THE APPROPRIATE LINE BELOW.

___ PUBLICATION SENT, (DATE) _____

___ PUBLICATION CANCELLED.

___ NOT YET PUBLISHED. ANTICIPATED PUBLICATION DATE IS _____

___ PUBLICATION DATE UNKNOWN. ORDER CANCELLED.

___ PUBLICATION OUT OF PRINT. ORDER CANCELLED.

___ PUBLICATION OUT OF PRINT. ANOTHER PRINTING EXPECTED (DATE) _____

___ PUBLICATION OUT OF PRINT. WILL SEARCH AND GIVE QUOTES.

___ UNEXPECTED DELAY. SHOULD BE SUPPLIED BY (DATE) _____

___ OUT OF STOCK. SHOULD BE SUPPLIED BY (DATE) _____

___ CLAIMING. BOOK OR REPORT TO FOLLOW.

PLEASE REPLY TO:

THANK YOU

FORM LIB37-5(2-78)

APPENDIX Z: RECEIVING REPORT

AGENCY

RECEIVING REPORT
WASHINGTON LIBRARY NETWORK

VENDOR NO.	VENDOR NAME & ADDRESS	APPROVED FOR PAYMENT	REFERENCE NO.	VOUCHER NO.	DATE PROCESSED	PAGE
8355	STECHERT MACMILLAN INC 7250 WESTFIELD AVE PENNSAUKEN NJ 08110			V500001	780526	2
		RECEIVED		WARRANT NO.		

DESCRIPTION		ACCOUNT CODE	PURCHASE ORDER TAX AMOUNT	INVOICE NO PIH AMOUNT	T C	INVOICE AMOUNT
GRAPHIS		001-01-05A -4920-06-8F -0200	00-879710	P77981	C	69.35
5.10% COMPENSATING TAX		CC1-01-05A -4920-06-8F -0200	3.54			
HISPANIC AMERICAN PERIODICALS	V1-2	CC1-01-05A -4920-06-8F -0200	00-810539	P77981	C	75.00
5.10% COMPENSATING TAX		001-01-05A -4920-06-8F -0200	3.83			
HISTORY OF PHOTOGRAPHY; AN INT		0C1-01-05A -4920-06-8F -0200	00-810540	P77981	C	24.00
5.10% COMPENSATING TAX		C01-01-05A -4920-06-8F -0200	1.22			
SCANDINAVICA.	V17	0C1-01-05A -492_-06-8F -0200	00-964891	P77981	C	19.00
5.10% COMP TAX & PIH		CC1-01-05A -4920-06-8F -0200	1.60	12.45		12.45
*** INVOICE TOTALS ***			10.83	12.45		212.38
SIEMPRE.'	1978	CC1-01-05A -4920-06-8F -0500	00-967899	020956	C	-64.36
5.10% COMP TAX & PIH		001-01-05A -4920-06-8F -0500	-3.48	-3.86		-3.86
*** INVOICE TOTALS ***			-3.48	-3.86		-68.22
ANTIBIOTICS AND CHEMOTHERAPY.	V.22	001-01-05A -4920-06-8F -0400	00-823374	068594	C	34.00
5.10% COMP TAX & PIH		001-01-05A -4920-06-8F -0400	1.78	.92		.92
*** INVOICE TOTALS ***			1.78	.92		34.92
PERFORMANCE REGISTER.	1976	C01-01-05A -4920-06-8F -0400	00-811209	069232	C	15.00
5.10% COMP TAX & PIH		C01-01-05A -4920-06-8F -0400	.81	.82		.82
*** INVOICE TOTALS ***			.81	.82		15.82
STATISTICAL ABSTRACT OF ISRAEL		001-01-05A -4920-06-8F -0500	00-803332	069863	C	9.50
5.10% COMP TAX & PIH		C01-01-05A -4920-06-8F -0500	.53	.82		.82
*** INVOICE TOTALS ***			.53	.82		10.32

Form LI837-4 (2-78)

WLN

APPENDIX AA: CUMULATIVE ACCOUNT STATUS
SUMMARY REPORT

ACCOUNT STATUS CUMULATIVE SUMMARY FOR 07-01-78/10-09-78 WASHINGTON LIBRARY NETWORK 10-09-78 PAGE 1

* ACCOUNT NUMBER	ACCOUNT CODE	ALLOCATION	NET ENCUMBRANCE	NET DISBURSEMENT	FREE BALANCE
1001	001 C1 020 0001 JH 0001	44,250.00	0.00	0.00	44,250.00
1002	001 02 020 0001 JH 0001	147,950.00	27,110.56	0.00	120,839.44
1003	001 C1 020 0011 JH 0001	0.00	0.00	0.00	0.00
1004	001 01 020 0004 JH 0001	0.00	0.00	0.00	0.00
1005	001 C1 020 0005 JH 0001	0.00	0.00	0.00	0.00
6001	001 51 030 0031 JH 0001	5,000.00	124.35	0.00	4,875.65
LIBRARY TOTAL		197,200.00	27,234.91	0.00	169,965.09

* AMOUNTS FOR ACCOUNTS THAT ARE FLAGGED WITH AN ASTERISK ARE NOT INCLUDED IN TOTALS